ALLIANT POWDER®

*Technically Superior by Design*

# RELOADERS' GUIDE

**When You Are Looking For Consistency, Reliability & Performance... Look No Further Than Alliant Powder**


**Centerfold Powder Guide Pullout Inside**

Hunting & Shooting Sports Heritage Fund

2005 Edition

Technical Assistance: 800-276-9337

www.alliantpowder.com

ALLIANT POWDER®

*Technically Superior by Design*

# Our Mission: PREMIUM PERFORMANCE, CONSISTENT QUALITY.

Every container of Alliant smokeless powder is backed by a century of manufacturing experience, and the most exacting quality control procedures in the industry. We check and control chemical composition, the shape and size of powder grains, even the propellants' density and porosity. We send samples of every batch to our ballistics lab, testing, among other things, for burning speed. Then, after blending batches together for exactly the right ballistic characteristics, we use our advanced computerized equipment to test again.

The result: a line of products known and respected for consistent quality and performance– not only in the lab, but especially on the firing line. One of the reasons you're a reloader, after all, is so you'll know exactly what to expect every time you pull the trigger. With Alliant powders you will. Not only shell after shell, but also year after year.

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# CAUTION

Millions of men and women reload ammunition as a hobby, or because the cost savings allow them to enjoy shooting more often. You should always reload so that the safest and most accurate loads on the shooting line will be yours, and always remember that to become or to continue to be a safe reloader, ***you must be careful at all times.*** As a reloader, you are dealing with and manufacturing explosive materials; handling powders and primers that can, if misused, explode or burn, causing property damage, serious personal injury--even death! Later, when you shoot the ammunition you've produced and checked, you will be the person closest to the gun, the one most likely to be injured if improperly loaded ammunition causes your gun to malfunction.

***Protect yourself by studying books that describe safe reloading techniques in detail. When using smokeless powders, use only the exact type and quantity described herein. Always store and use your smokeless powders in accordance with the guidelines listed in this booklet.***

# POWDER WARNINGS

- ***NEVER*** substitute smokeless powder for black powder, or for black powder substitutes.
- ***NEVER*** mix together any two powders, regardless of type, brand, style, or source.
- ***NEVER*** use the data in this Reloaders' Guide for any other powders, even if advertised "similar to Bullseye" or "burns the same as Red Dot," etc.

***Violation of any of the above could result in severe personal injury (including death) or gun damage.***

# WARNING – BE SURE TO:

- **The powder charge weights listed in our data tables are maximum.** For rifle and pistol loads, the maximum powder charge should be reduced by 10% to establish a minimum or starting powder charge.
- All loads have been tested in our ballistics lab with SAAMI approved, un-vented test barrels. Keep in mind that such test equipment often yields higher velocities than are usually obtained with sporting arms.
- If ever you are unsure of your load data, or if you detect any signs of high pressure while using load data from this Guide, stop loading or testing at once. Contact our technical service personnel at 800-276-9337 before proceeding.

# BALLISTICS

The ballistic data shown in this booklet were obtained in the laboratory under strictly controlled conditions. ***You must load only the exact combinations that are listed.*** Even then, different reloading techniques, plus industrial tolerances of each component, likely will cause your ammunition, or ammunition loaded by other competent laboratories, to yield slightly different ballistic data. Therefore, ***powder charge recommendations in this booklet*** **must never be exceeded.** Safe shooters and hunters know that accuracy, not maximum power, is their key to success.

# FOR TECHNICAL ASSISTANCE

For Technical Assistance or for any information not included in this Reloaders' Guide, please call 1-800-276-9337.

For our interactive Reloaders' Guide on the Web, click onto www.alliantpowder.com.
Our e-mail address is: alliant_reloading@atk.com

# DISCLAIMER

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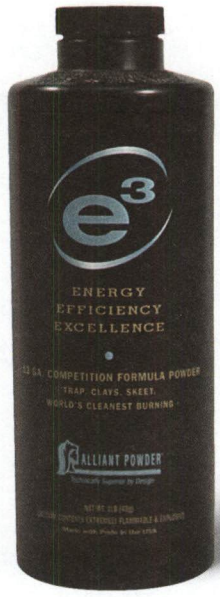
**Alliant neither assumes nor authorizes any person to assume for it any liability in connection with the use of this product.**

ALLIANT POWDER®
*Technically Superior by Design*

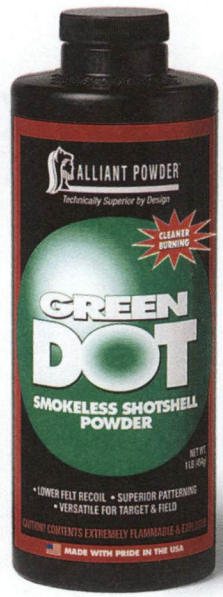
# ALLIANT SHOTSHE

# ALL-TIME FAVORITES RED DOT, GREEN DO

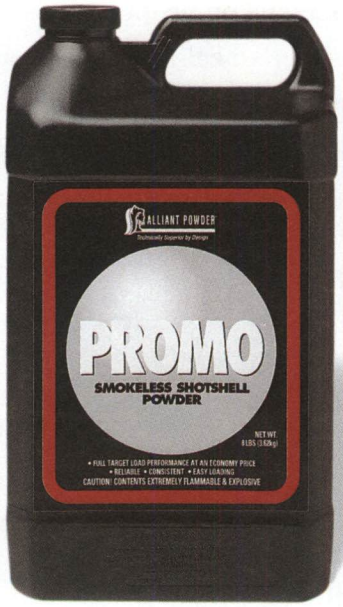

**Red Dot®.** NOW CLEANER BURNING! America's #1 choice for clay target loads, now 50% cleaner. Since 1932, more 100 straights than any other powder. ***Available in 8-lb., 4-lb., and 1-lb. canisters.***




**e3®.** The first of a new generation of high performance powders.




**Green Dot®.** NOW CLEANER BURNING! It delivers precise burn rates for uniformly tight patterns, and you'll appreciate the lower felt recoil. Versatile for target and field. ***Available in 8-lb., 4-lb., and 1-lb. canisters.***




**PROMO.** America's #1 economy-priced 12 ga. target powder. Promo has the same burn speed as Red Dot, but is more dense, thus requiring a smaller bushing to obtain the same charge weight. ***Available in 8-lb. canister only.***


**Blue Dot®.** The powder of choice for magnum lead shotshell loads. 10, 12, 16, and 20 gauge. Consistent and accurate. Doubles as magnum handgun powder. ***Available in 5-lb., and 1-lb. canisters.***

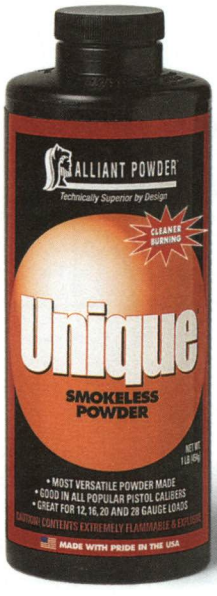
# OWDERS ARE #1!
# ND UNIQUE ARE 50% CLEANER BURNING.


**American Select®.** Our "ultra clean" burning premium powder makes a versatile target load and superior 1-oz. load for improved clay target scores. Great for Cowboy Action handgun loading too! ***Available in 8-lb., 4-lb., and 1-lb. canisters.***


**410®.** Cleanest .410 bore powder on the market.


**Steel®.** Designed for waterfowl shotshell. Gives steel shot high velocity within safe pressure limits for 10 and 12 gauge loads. ***Available in 4-lb. and 1-lb. canisters.***


**Herco®.** Since 1920, a proven powder for heavy shotshell loads, including 10, 12, 16, 20 and 28 gauge target loads. The ultimate in 12 gauge, 1-1/4 oz. upland game loads. ***Available in 8-lb., 4-lb., and 1-lb. canisters.***




**Unique®.** NOW CLEANER BURNING! Most versatile shotgun/handgun powder made. Great for 12, 16, 20 and 28 gauge loads. Use with most hulls, primers and wads. ***Available in 8-lb., 4-lb., and 1-lb. canisters.***

# SHOTSHELL RELOADING DATA

## 10-Gauge, 3 1/2 inch Fed. Plastic with Paper Wad Base

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | Spacers (card wad directly under sh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 1/4 | 1,265 | CCI 209M | Rem. SP10 | | | | | 29.5 | 8.3 | | | | | | | (6) .135 |
| | | Win. 209 | Rem. SP10 | | | | | 29.0 | 8.8 | | | | | | | (6) .135 |
| 1 5/8 | 1,285 | CCI 209M | Rem. SP10 | | | | | | | | | 36.0 | 10.3 | 45.0 | 8.0 | (4) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 45.5 | 8.3 | (4) .135 |
| 1 7/8 | 1,270 | CCI 209M | Rem. SP10 | | | | | | | | | | | 45.5 | 9.9 | (3) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 45.5 | 10.2 | (3) .135 |
| 2 | 1,210 | CCI 209M | Rem. SP10 | | | | | | | | | | | 43.5 | 9.2 | (2) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 44.0 | 9.4 | (2) .135 |
| 2 1/4 | 1,165 | CCI 209M | Rem. SP10 | | | | | | | | | | | 42.0 | 9.8 | (1) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 42.5 | 10.2 | (1) .135 |

## 10-Gauge, 3 1/2 inch Rem. SP Shell

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | Spacers (card wad directly under sh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 1/4 | 1,265 | CCI 209M | Rem. SP10 | | | | | 28.5 | 8.8 | 31.0 | 7.5 | | | | | (6) .135 |
| | | Win. 209 | Rem. SP10 | | | | | 29.0 | 8.8 | 31.0 | 7.6 | | | | | (6) .135 |
| 1 5/8 | 1,285 | CCI 209M | Rem. SP10 | | | | | | | | | | | 43.5 | 8.5 | (4) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 44.0 | 8.5 | (4) .135 |
| 1 7/8 | 1,270 | CCI 209M | Rem. SP10 | | | | | | | | | | | 44.0 | 9.8 | (3) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 44.5 | 9.1 | (3) .135 |
| 2 | 1,210 | CCI 209M | Rem. SP10 | | | | | | | | | | | 42.0 | 10.4 | (2) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 42.5 | 10.1 | (2) .135 |
| 2 1/4 | 1,165 | CCI 209M | Rem. SP10 | | | | | | | | | | | 40.5 | 10.4 | none |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 41.0 | 10.5 | none |

## 10-Gauge, 3 1/2 inch Win. Polyformed with Plastic Base Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | Spacers (card wad directly under sh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 1/4 | 1,265 | CCI 209M | Rem. SP10 | | | | | 28.0 | 8.5 | | | | | | | (5) .135 |
| | | Win. 209 | Rem. SP10 | | | | | 28.5 | 8.6 | | | | | | | (5) .135 |
| 1 5/8 | 1,285 | CCI 209M | Rem. SP10 | | | | | | | | | 35.5 | 10.4 | 44.5 | 8.7 | (3) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 45.0 | 8.8 | (3) .135 |
| 1 7/8 | 1,270 | CCI 209M | Rem. SP10 | | | | | | | | | | | 45.0 | 9.8 | (2) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 45.5 | 10.2 | (2) .135 |
| 2 | 1,210 | CCI 209M | Rem. SP10 | | | | | | | | | | | 43.0 | 9.4 | (1) .135 |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 43.5 | 9.5 | (1) .135 |
| 2 1/4 | 1,165 | CCI 209M | Rem. SP10 | | | | | | | | | | | 41.5 | 10.5 | none |
| | | Win. 209 | Rem. SP10 | | | | | | | | | | | 42.0 | 10.5 | none |

## 12-Gauge, 2 3/4 inch Cheddite Plastic Hull

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,200 | Cheddite | Fed. 12SO | 19.0 | 7.8 | 20.0 | 6.2 | 21.5 | 6.9 | | | | | | | | |
| 1 | 1,255 | Cheddite | Fed. 12SO | 20.0 | 8.7 | 21.5 | 7.0 | 23.0 | 7.8 | | | | | | | | |
| 1 | 1,290 | Cheddite | Fed. 12SO | 21.0 | 9.3 | | | 24.0 | 8.3 | | | | | | | | |
| 1 | 1,300 | Cheddite | Fed. 12SO | | | 22.5 | 7.6 | | | | | | | | | | |
| 1 1/8 | 1,145 | Cheddite | Fed. 12S3 | 18.0 | 9.0 | 19.0 | 7.6 | 20.0 | 7.5 | | | | | | | | |
| | | | Rem. RXP12 | 18.0 | 8.5 | 19.5 | 7.2 | 20.5 | 7.1 | | | | | | | | |
| 1 1/8 | 1,200 | Cheddite | Fed. 12S3 | 19.5 | 9.6 | 20.5 | 8.8 | 21.5 | 8.3 | | | | | | | | |
| | | | Rem. RXP12 | 19.5 | 8.8 | 20.5 | 7.6 | 22.0 | 7.8 | | | | | | | | |

## 12-Gauge, 2 3/4 inch Fed. Gold Medal Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,200 | Fed. 209A | Purple PC | 17.0 | 6.4 | | | | | | | | | | | | |

# 12-Gauge, 2 3/4 inch Fed. Gold Medal Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,200 • Shot Wt. - 7/8 | | | | | | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 17.5 | 7.1 | | | | | | | | | | | | |
| | | | Win. WAA12SL | 17.0 | 7.3 | | | | | | | | | | | | |
| 7/8 | 1,250 | Fed. 209A | Fed. 12SO | 19.0 | 7.9 | | | | | | | | | | | | |
| | | | Purple PC | 18.5 | 7.3 | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 18.5 | 7.8 | | | | | | | | | | | | |
| | | | Win. WAA12SL | 18.0 | 8.0 | | | | | | | | | | | | |
| 7/8 | 1,300 | Fed. 209A | Claybuster 1100-12 | | | 21.5 | 6.9 | | | | | | | | | | |
| | | | Fed. 12SO | 19.5 | 8.4 | 21.0 | 7.3 | 22.0 | 7.5 | | | | | | | | |
| | | | Purple PC | 19.5 | 7.9 | 21.5 | 6.9 | 22.5 | 7.0 | | | | | | | | |
| | | | Rem. TGT 12 | 19.5 | 8.5 | 21.0 | 7.4 | 22.0 | 7.2 | | | | | | | | |
| | | | Win. WAA12SL | 19.0 | 8.4 | | | 21.5 | 7.6 | | | | | | | | |
| 1 | 1,200 | Fed. 209A | Claybuster 1100-12 | | | 20.0 | 7.3 | | | | | | | | | | |
| | | | Fed. 12SO | 18.0 | 8.3 | 19.5 | 7.1 | 20.5 | 7.6 | | | | | | | | |
| | | | Purple PC | 18.0 | 7.4 | | | 20.5 | 7.3 | | | | | | | | |
| | | | Rem. TGT 12 | 18.0 | 7.9 | 19.5 | 7.5 | 20.0 | 7.0 | | | | | | | | |
| | | | Win. WAA12SL | 18.0 | 8.7 | 19.5 | 7.2 | 20.0 | 7.8 | | | | | | | | |
| 1 | 1,255 | Fed. 209A | Claybuster 1100-12 | | | 21.0 | 7.6 | | | | | | | | | | |
| | | | Fed. 12SO | 19.5 | 9.3 | 21.0 | 7.7 | 21.5 | 8.6 | | | | | | | | |
| | | | Purple PC | 19.5 | 8.7 | | | 21.5 | 8.0 | | | | | | | | |
| | | | Rem. TGT 12 | 19.0 | 8.7 | 20.5 | 8.1 | 21.5 | 7.9 | | | | | | | | |
| | | | Win. WAA12SL | 18.5 | 9.1 | 21.0 | 8.4 | 21.5 | 8.5 | | | | | | | | |
| 1 | 1,290 | Fed. 209A | Claybuster 1100-12 | | | 21.5 | 8.0 | | | | | | | | | | |
| | | | Fed. 12SO | 20.5 | 10.3 | 22.0 | 8.5 | 22.5 | 8.7 | | | | | | | | |
| | | | Purple PC | 20.5 | 9.3 | | | 22.5 | 8.3 | | | | | | | | |
| | | | Rem. TGT 12 | 20.0 | 9.1 | 21.5 | 8.8 | 22.5 | 8.5 | | | | | | | | |
| | | | Win. WAA12SL | 20.0 | 10.3 | 21.5 | 8.8 | 22.5 | 9.0 | | | | | | | | |
| 1 1/8 | 1,000 | Fed. 209A | Fed. 12S3 | 14.0 | 7.5 | 15.0 | 6.3 | | | | | | | | | | |
| 1 1/8 | 1,090 | CCI 209M | Fed. 12S3 | 17.0 | 8.3 | | | | | | | | | | | | |
| | | Fed. 209A | Claybuster 3118-12 | | | 17.5 | 7.1 | | | | | | | | | | |
| | | | Fed. 12S3 | 17.0 | 8.4 | 17.5 | 7.1 | 18.5 | 7.8 | | | | | | | | |
| | | | Fiocchi FTW1 | 16.5 | 8.5 | | | 18.0 | 7.8 | | | | | | | | |
| | | | Hornady Versalite | 17.0 | 8.6 | 17.0 | 8.1 | 18.0 | 7.2 | | | | | | | | |
| | | | Rem. Fig. 8 | 17.0 | 7.7 | 17.5 | 8.0 | 18.0 | 7.0 | | | | | | | | |
| | | | Win. WAA12 (White) | 16.5 | 8.5 | 17.5 | 7.4 | 18.0 | 7.7 | | | | | | | | |
| | | | Win. WAA12SL | 17.0 | 8.1 | | | 18.0 | 7.6 | | | | | | | | |
| | | | Win. WT12 (Orange) | | | 18.0 | 7.7 | | | | | | | | | | |
| | | | Windjammer | 17.5 | 7.6 | | | 18.5 | 6.6 | | | | | | | | |
| | | Fio. 616 | Fed. 12S3 | 17.5 | 8.2 | | | | | | | | | | | | |
| | | Win. 209 | Fed. 12S3 | 17.0 | 8.4 | | | | | | | | | | | | |
| 1 1/8 | 1,145 | CCI 209 | Fed. 12S3 | 18.0 | 8.2 | | | 19.0 | 7.8 | | | | | | | | |
| | | CCI 209M | Fed. 12S3 | 18.0 | 8.6 | | | 19.5 | 7.5 | | | | | | | | |
| | | CCI 209SC | Fed. 12S3 | 19.0 | 9.8 | 18.5 | 8.5 | 20.5 | 8.6 | | | | | | | | |
| | | | Rem. Fig. 8 | 19.5 | 9.5 | | | 21.0 | 8.3 | | | | | | | | |
| | | | Win. WAA12 (White) | 18.5 | 10.2 | | | 20.5 | 9.0 | | | | | | | | |
| | | Fed. 209A | Claybuster 3118-12 | | | 19.0 | 8.2 | | | | | | | | | | |
| | | | Fed. 12S3 | 18.0 | 8.8 | 19.0 | 7.6 | 19.5 | 8.1 | | | | | | | | |
| | | | Fiocchi FTW1 | 18.0 | 9.6 | | | 19.5 | 8.6 | | | | | | | | |
| | | | Hornady Versalite | 18.0 | 9.4 | 18.5 | 9.6 | 19.0 | 8.0 | | | | | | | | |
| | | | Rem. Fig. 8 | 18.0 | 8.8 | 19.0 | 9.0 | 19.0 | 7.7 | | | | | | | | |
| | | | Rem. RXP12 | 18.0 | 9.4 | | | 19.0 | 8.0 | | | | | | | | |
| | | | Win. WAA12 (White) | 17.5 | 9.4 | 19.0 | 9.6 | 19.0 | 8.2 | | | | | | | | |
| | | | Win. WAA12SL | 18.0 | 9.2 | | | 19.0 | 8.2 | | | | | | | | |
| | | | Win. WT12 (Orange) | 18.5 | 9.3 | 19.0 | 9.3 | 20.0 | 8.4 | | | | | | | | |
| | | | Windjammer | 18.5 | 8.2 | 19.0 | 8.7 | 19.5 | 7.7 | | | | | | | | |
| | | Rem. 209P | Fed. 12S3 | 18.5 | 8.2 | 19.5 | 7.8 | 20.5 | 6.8 | | | | | | | | |
| | | Win. 209 | Fed. 12S3 | 17.5 | 9.6 | 19.5 | 8.1 | 19.5 | 8.0 | | | | | | | | |
| 1 1/8 | 1,200 | CCI 209 | Fed. 12S3 | 20.0 | 9.8 | | | 22.0 | 9.2 | 24.0 | 8.3 | | | | | | |
| | | CCI 209M | Fed. 12S3 | 19.0 | 8.9 | | | 21.0 | 8.6 | 23.5 | 8.0 | | | | | | |
| | | CCI 209SC | Fed. 12S3 | 20.5 | 10.7 | 20.5 | 10.0 | 22.5 | 8.9 | | | | | | | | |
| | | | Rem. Fig. 8 | 21.0 | 9.8 | | | 23.0 | 9.2 | | | | | | | | |
| | | | Win. WAA12 (White) | 20.0 | 10.5 | | | 22.0 | 10.2 | | | | | | | | |
| | | Fed. 209A | Claybuster 3118-12 | | | 20.5 | 9.6 | | | | | | | | | | |
| | | | Fed. 12S3 | 19.5 | 10.0 | 20.5 | 9.2 | 20.0 | 9.0 | 22.5 | 7.3 | | | | | | |
| | | | Fiocchi FTW1 | 19.0 | 10.5 | | | 20.5 | 9.3 | 22.5 | 8.1 | | | | | | |
| | | | Hornady Versalite | 19.0 | 10.1 | 20.0 | 10.9 | 20.5 | 9.4 | 22.0 | 8.0 | | | | | | |
| | | | Rem. Fig. 8 | 19.0 | 9.5 | 20.0 | 10.3 | 20.0 | 8.6 | 22.5 | 7.3 | | | | | | |
| | | | Rem. RXP12 | 19.0 | 9.9 | | | 20.0 | 8.8 | 22.5 | 7.8 | | | | | | |
| | | | Win. WAA12 (White) | 19.0 | 10.4 | 20.5 | 9.4 | 20.0 | 9.2 | 22.5 | 8.1 | | | | | | |
| | | | Win. WAA12SL | 19.0 | 10.0 | | | 20.0 | 8.8 | | | | | | | | |
| | | | Win. WT12 (Orange) | 20.0 | 10.4 | 20.5 | 10.4 | 21.5 | 8.8 | 23.5 | 8.3 | | | | | | |
| | | | Windjammer | 19.5 | 9.6 | 20.5 | 9.8 | 21.0 | 8.2 | 22.5 | 6.9 | | | | | | |
| | | Rem. 209P | Fed. 12S3 | 19.5 | 9.3 | 21.5 | 9.0 | 21.5 | 7.9 | 24.0 | 6.9 | | | | | | |
| | | Win. 209 | Fed. 12S3 | 19.0 | 10.5 | 20.5 | 9.9 | 20.5 | 9.0 | 23.0 | 8.6 | | | | | | |

# 12-Gauge, 2 3/4 inch Fed. Gold Medal Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,250 • Shot Wt. - 1 1/8 | | | | | | | | | | | | | | | | | |
| 1 1/8 | 1,250 | CCI 209M | Fed. 12S3 | | | | | 22.5 | 9.8 | 24.0 | 9.1 | | | | | | |
| | | Fed. 209A | Claybuster 3118-12 | | | 22.0 | 10.6 | | | | | | | | | | |
| | | | Fed. 12S3 | | | 22.0 | 10.1 | 21.5 | 9.5 | 23.5 | 8.1 | 26.0 | 8.0 | | | | |
| | | | Hornady Versalite | 20.0 | 10.7 | 21.0 | 10.9 | 21.5 | 9.0 | 24.0 | 8.3 | 26.0 | 8.2 | | | | |
| | | | Rem. Fig. 8 | 20.0 | 9.5 | | | 22.0 | 9.2 | 23.5 | 7.8 | 26.0 | 7.7 | | | | |
| | | | Rem. RXP12 | 20.0 | 10.1 | | | 21.5 | 9.7 | 23.5 | 8.4 | 26.0 | 8.0 | | | | |
| | | | Win. WAA12 (White) | | | | | 21.5 | 9.4 | 23.0 | 8.4 | 26.0 | 8.3 | | | | |
| | | | Windjammer | 20.5 | 9.5 | 21.5 | 10.7 | 22.5 | 8.4 | 24.0 | 7.7 | 26.0 | 7.4 | | | | |
| | | Rem. 209P | Fed. 12S3 | | | | | 23.0 | 8.8 | 25.0 | 7.6 | | | | | | |
| | | Win. 209 | Fed. 12S3 | | | | | 22.5 | 10.5 | 24.0 | 9.8 | | | | | | |
| 1 1/8 | 1,310 | Fed. 209A | Hornady Versalite | | | | | | | 25.0 | 10.0 | | | | | | |
| | | | Rem. RXP12 | | | | | 24.0 | 10.4 | 26.0 | 10.3 | | | | | | |
| | | | Win. WAA12 (White) | | | | | 23.0 | 10.4 | 25.0 | 9.2 | | | | | | |
| | | | Windjammer | | | | | 24.0 | 8.8 | 25.0 | 9.7 | | | | | | |
| 1 1/8 | 1,400 | Fed. 209A | Win. WAA12F114 | | | | | | | | | 30.0 | 10.5 | | | | |
| 1 1/8 | 1,440 | Fed. 209A | Red PC | | | | | | | | | 32.0 | 10.5 | | | | |
| 1 1/4 | 1,205 | CCI 209M | Rem. RP12 | | | | | | | | | | | 34.0 | 9.4 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 34.0 | 9.7 | | |
| | | Rem. 209P | Rem. RP12 | | | | | | | | | | | 35.5 | 8.1 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 34.5 | 9.9 | | |
| 1 1/4 | 1,220 | CCI 209M | Fed. 12S4 | | | | | | | 24.5 | 9.5 | 25.5 | 8.7 | | | | |
| | | Fed. 209A | Fed. 12S4 | | | | | | | 24.0 | 10.5 | 25.0 | 10.2 | | | | |
| | | | Rem. SP12 | | | | | | | 24.0 | 10.4 | 26.0 | 9.7 | | | | |
| | | | Win. WAA12F114 | | | | | | | 24.0 | 10.6 | 25.0 | 10.1 | | | | |
| | | Rem. 209P | Fed. 12S4 | | | | | | | 25.0 | 9.8 | 25.5 | 8.1 | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | 24.0 | 9.5 | 25.5 | 9.4 | | | | |
| 1 1/4 | 1,275 | CCI 209M | Fed. 12S4 | | | | | | | | | | | 35.0 | 9.1 | | |
| | | Fed. 209A | Fed. 12S4 | | | | | | | | | | | 34.0 | 8.9 | | |
| | | | Rem. SP12 | | | | | | | | | 27.0 | 10.1 | | | | |
| | | | Win. WAA12F114 | | | | | | | | | 27.0 | 10.5 | | | | |
| | | Rem. 209P | Fed. 12S4 | | | | | | | | | 27.5 | 9.2 | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | | | | | 35.0 | 8.7 | | |
| 1 1/4 | 1,300 | Fed. 209A | Win. WAA12F114 | | | | | | | | | 28.0 | 10.8 | | | | |
| 1 1/4 | 1,310 | Fed. 209A | Red PC | | | | | | | | | 29.0 | 10.0 | | | | |
| 1 1/4 | 1,330 | CCI 209M | Rem. SP12 | | | | | | | | | | | 37.5 | 8.3 | | |
| | | Fed. 209A | Rem. SP12 | | | | | | | | | | | 35.0 | 10.5 | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | | | 37.0 | 9.0 | | |
| 1 1/4 | 1,440 | Fed. 209A | Rem. RP12 | | | | | | | | | | | 40.5 | 10.7 | | |
| 1 3/8 | 1,240 | CCI 209M | Rem. RP12 | | | | | | | | | | | 35.0 | 8.6 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 34.0 | 9.9 | | |
| | | Rem. 209P | Rem. RP12 | | | | | | | | | | | 36.0 | 7.8 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 34.5 | 8.6 | | |
| 1 3/8 | 1,295 | CCI 209M | Rem. RP12 | | | | | | | | | | | 36.5 | 9.0 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 35.5 | 10.7 | | |
| | | Rem. 209P | Rem. RP12 | | | | | | | | | | | 39.0 | 8.6 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 36.0 | 9.2 | | |
| 1 1/2 | 1,150 | Fed. 209A | Rem. RP12 | | | | | | | | | 25.5 | 10.1 | 33.5 | 8.3 | | |

# 12-Gauge, 2 3/4 inch Fed. Hi Power Plastic Shells with Rolled Paper Base Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,290 | Fed. 209A | Fed. 12S3 | 21.0 | 9.4 | | | 23.0 | 7.5 | | | | | | | | |
| | | | Rem. R12L | 20.5 | 8.5 | | | 22.5 | 7.4 | | | | | | | | |
| 1 1/8 | 1,145 | CCI 209M | Fed. 12S3 | 18.5 | 8.6 | | | 20.0 | 7.6 | | | | | | | | |
| | | Fed. 209A | Fed. 12S3 | 18.5 | 7.3 | | | 20.0 | 7.2 | | | | | | | | |
| | | | Hornady Versalite | 18.5 | 8.3 | | | 19.5 | 7.1 | | | | | | | | |
| | | | Rem. RXP12 | 18.5 | 8.7 | | | 19.0 | 8.7 | | | | | | | | |
| | | | Win. WAA12 (White) | 18.5 | 9.6 | | | 18.5 | 9.1 | | | | | | | | |
| | | Rem. 209P | Fed. 12S3 | 18.5 | 8.4 | | | 21.0 | 6.7 | | | | | | | | |
| | | Win. 209 | Fed. 12S3 | 18.5 | 9.1 | | | 20.0 | 8.2 | | | | | | | | |
| 1 1/8 | 1,200 | CCI 209M | Fed. 12S3 | 20.0 | 9.3 | | | 21.5 | 8.6 | 24.0 | 7.7 | | | | | | |
| | | Fed. 209A | Fed. 12C1 | | | | | 20.5 | 9.4 | | | | | | | | |
| | | | Fed. 12S3 | 19.0 | 9.3 | | | 21.0 | 8.0 | 23.0 | 7.7 | | | | | | |
| | | | Hornady Versalite | 19.5 | 9.0 | | | 20.0 | 8.8 | 22.5 | 8.0 | | | | | | |
| | | | Rem. RXP12 | 19.5 | 9.3 | | | 20.5 | 9.1 | 22.0 | 8.1 | | | | | | |
| | | | Win. WAA12 (White) | 19.0 | 9.8 | | | 20.0 | 9.3 | 21.0 | 7.7 | | | | | | |
| | | Rem. 209P | Fed. 12S3 | 20.0 | 9.2 | | | 22.0 | 7.6 | | | | | | | | |
| | | Win. 209 | Fed. 12S3 | 19.5 | 9.5 | | | 21.5 | 8.9 | 23.5 | 8.1 | | | | | | |
| 1 1/8 | 1,255 | CCI 209M | Fed. 12S3 | 21.5 | 10.1 | | | 22.0 | 9.6 | 25.5 | 8.4 | | | | | | |

# 12-Gauge, 2 3/4 inch Fed. Hi Power Plastic Shells with Rolled Paper Base Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,255 • Shot Wt. - 1 1/8 | | | | | | | | | | | | | | | | | |
| | | Fed. 209A | Fed. 12C1 | 21.0 | 10.2 | | | 22.0 | 10.1 | | | | | | | | |
| | | | Fed. 12S3 | 21.5 | 10.1 | | | 22.0 | 9.0 | 24.0 | 8.1 | | | | | | |
| | | | Hornady Versalite | 20.5 | 9.7 | | | 23.5 | 8.6 | 23.5 | 8.2 | | | | | | |
| | | | Rem. RXP12 | 21.0 | 9.8 | | | 22.5 | 10.0 | 23.0 | 8.1 | | | | | | |
| | | | Win. WAA12 (White) | | | | | 22.0 | 10.3 | 23.0 | 8.6 | | | | | | |
| | | Rem. 209P | Fed. 12S3 | 22.0 | 10.3 | | | 23.0 | 8.5 | | | | | | | | |
| | | Win. 209 | Fed. 12S3 | 21.5 | 10.7 | | | 23.0 | 9.4 | 25.0 | 9.1 | | | | | | |
| 1 1/4 | 1,220 | CCI 209M | Fed. 12S4 | | | | | | | 25.0 | 10.0 | | | | | | |
| | | Fed. 209A | Fed. 12C1 | | | | | | | 23.0 | 9.0 | | | | | | |
| | | | Fed. 12S4 | | | | | 23.0 | 9.8 | 23.0 | 9.5 | | | | | | |
| | | | Hornady Versalite | | | | | 23.0 | 9.7 | 23.5 | 8.8 | | | | | | |
| | | | Rem. R12H | | | | | 22.0 | 10.5 | | | | | | | | |
| | | | Rem. RXP12 | | | | | 22.0 | 9.6 | 23.0 | 8.3 | | | | | | |
| | | | Win. WAA12 (White) | | | | | 21.5 | 9.5 | 23.0 | 9.6 | | | | | | |
| | | | Win. WAA12F114 | | | | | 23.0 | 9.9 | 23.0 | 9.4 | | | | | | |
| | | Rem. 209P | Fed. 12S4 | | | | | | | 25.5 | 9.0 | | | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | 25.0 | 9.5 | | | | | | |
| 1 1/4 | 1,330 | CCI 209M | Fed. 12S4 | | | | | | | | | 30.0 | 9.5 | 38.0 | 9.8 | | |
| | | Fed. 209A | Fed. 12C1 | | | | | | | 25.5 | 10.2 | 28.5 | 9.8 | | | | |
| | | | Fed. 12S4 | | | | | | | | | 29.0 | 10.2 | | | | |
| | | | Rem. SP12 | | | | | | | 25.5 | 10.2 | 28.5 | 9.9 | | | | |
| | | | Win. WAA12 (White) | | | | | | | | | 29.0 | 10.5 | | | | |
| | | | Win. WAA12F114 | | | | | | | | | 29.5 | 9.4 | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | | | 30.0 | 10.2 | 38.0 | 8.6 | | |
| 1 3/8 | 1,295 | CCI 209M | Rem. RP12 | | | | | | | | | | | 39.0 | 8.5 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 38.5 | 8.6 | | |
| | | | Rem. SP12 | | | | | | | | | | | 38.0 | 9.0 | | |
| | | | Win. WAA12 (White) | | | | | | | | | | | 37.5 | 8.5 | | |
| | | Rem. 209P | Rem. RP12 | | | | | | | | | | | 39.0 | 8.4 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 39.0 | 9.4 | | |
| 1 3/8 | 1,350 | CCI 209M | Rem. RP12 | | | | | | | | | | | 39.5 | 9.6 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 39.5 | 9.7 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 40.0 | 9.6 | | |
| 1 1/2 | 1,150 | Fed. 209A | Rem. RP12 | | | | | | | | | | | 33.5 | 8.4 | | |
| | | | Rem. SP12 | | | | | | | | | 26.5 | 8.9 | | | | |
| 1 1/2 | 1,205 | CCI 209M | Rem. RP12 | | | | | | | | | | | 35.0 | 8.7 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 34.5 | 8.5 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 34.5 | 8.6 | | |
| 1 1/2 | 1,260 | CCI 209M | Rem. RP12 | | | | | | | | | | | 37.0 | 9.5 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 36.0 | 9.5 | | |
| | | | Rem. SP12 | | | | | | | | | | | 37.0 | 9.6 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 37.0 | 9.9 | | |

# 12-Gauge, 2 3/4 inch Fed. One-Piece Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 1/4 | 1,220 | CCI 209M | Fed. 12S4 | | | | | | | 25.5 | 9.2 | 26.0 | 8.9 | | | | |
| | | Fed. 209A | Fed. 12S4 | | | | | | | 25.0 | 9.1 | 26.0 | 8.4 | | | | |
| | | | Rem. SP12 | | | | | | | 25.5 | 8.7 | 26.5 | 7.8 | | | | |
| | | | Win. WAA12F114 | | | | | | | 25.0 | 8.7 | 26.0 | 8.0 | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | 25.0 | 9.2 | 26.0 | 8.5 | | | | |
| 1 1/4 | 1,275 | CCI 209M | Fed. 12S4 | | | | | | | | | 27.5 | 9.5 | | | | |
| | | Fed. 209A | Fed. 12S4 | | | | | | | | | 28.0 | 9.5 | | | | |
| | | | Rem. SP12 | | | | | | | | | 27.5 | 8.2 | | | | |
| | | | Win. WAA12F114 | | | | | | | | | 27.5 | 8.7 | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | | | 27.5 | 9.0 | | | | |
| 1 1/4 | 1,330 | CCI 209M | Fed. 12S4 | | | | | | | | | | | 37.5 | 9.0 | | |
| | | Fed. 209A | Fed. 12S4 | | | | | | | | | | | 38.5 | 8.5 | | |
| | | | Win. WAA12F114 | | | | | | | | | | | 39.0 | 7.7 | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | | | | | 39.0 | 8.4 | | |
| 1 3/8 | 1,240 | CCI 209M | Rem. SP12 | | | | | | | | | | | 37.5 | 8.3 | | |
| | | Fed. 209A | Rem. SP12 | | | | | | | | | | | 37.0 | 8.1 | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | | | 37.5 | 7.7 | | |
| 1 3/8 | 1,295 | CCI 209M | Rem. RP12 | | | | | | | | | | | 38.0 | 9.2 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 38.5 | 8.7 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 38.5 | 9.3 | | |
| 1 1/2 | 1,150 | CCI 209M | Fed. 12S4 | | | | | | | | | 26.5 | 10.0 | | | | |
| | | Fed. 209A | Fed. 12S4 | | | | | | | | | 27.0 | 9.2 | | | | |
| | | | Rem. SP12 | | | | | | | | | 27.0 | 8.6 | | | | |

# 12-Gauge, 2 3/4 inch Fed. One-Piece Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,150 • Shot Wt. - 1 1/2 | | | | | | | | | | | | | | | | | |
| | | Fio. 616 | Fed. 12S4 | | | | | | | | | 26.0 | 10.1 | | | | |
| | | Rem. 209P | Fed. 12S4 | | | | | | | | | 26.5 | 9.9 | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | | | 26.5 | 10.1 | | | | |
| 1 1/2 | 1,205 | CCI 209M | Rem. RP12 | | | | | | | | | | | 36.0 | 8.5 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 36.0 | 8.8 | | |
| | | | Rem. RP12 | | | | | | | | | | | 38.0 | 9.9 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 37.0 | 8.5 | | |
| 1 1/2 | 1,260 | CCI 209M | Rem. RP12 | | | | | | | | | | | 38.0 | 10.0 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 38.0 | 9.1 | | |
| 1 5/8 | 1,115 | CCI 209M | Rem. SP12 | | | | | | | | | 26.5 | 10.0 | | | | |
| | | Fed. 209A | Rem. SP12 | | | | | | | | | 26.5 | 10.0 | | | | |
| | | Fio. 616 | Rem. SP12 | | | | | | | | | 26.0 | 10.3 | | | | |
| | | Rem. 209P | Rem. SP12 | | | | | | | | | 26.5 | 9.5 | | | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | 26.5 | 9.8 | | | | |

# 12-Gauge, 2 3/4 inch Fed. Paper Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,290 | CCI 209M | Fed. 12S3 | 21.0 | 8.7 | | | 23.0 | 7.8 | | | | | | | | |
| | | Fed. 209A | Fed. 12S3 | 20.5 | 9.0 | | | 23.5 | 9.4 | | | | | | | | |
| | | | Fed. 12SO | 20.5 | 10.4 | | | 22.5 | 9.2 | | | | | | | | |
| | | | Rem. R12L | 20.0 | 9.3 | | | 21.5 | 8.8 | | | | | | | | |
| 1 1/8 | 1,145 | CCI 209M | Fed. 12C1 | 18.5 | 7.9 | | | 20.0 | 7.4 | | | | | | | | |
| | | CCI 209SC | Fed. 12S3 | | | 19.0 | 8.6 | | | | | | | | | | |
| | | Fed. 209A | Fed. 12C1 | 18.0 | 8.5 | | | 19.0 | 8.2 | | | | | | | | |
| | | | Fed. 12S3 | 18.0 | 8.7 | 19.0 | 8.2 | 19.5 | 7.4 | | | | | | | | |
| | | | Fiocchi FTW1 | 18.5 | 9.0 | | | 20.0 | 7.9 | | | | | | | | |
| | | | Hornady Versalite | 18.0 | 8.8 | 19.0 | 7.9 | 19.5 | 6.9 | | | | | | | | |
| | | | Lage Uniwad | 18.0 | 8.5 | | | 19.0 | 8.4 | | | | | | | | |
| | | | Red PC | 18.0 | 8.3 | | | 20.0 | 7.6 | | | | | | | | |
| | | | Rem. Fig. 8 | | | 19.0 | 7.6 | | | | | | | | | | |
| | | | Rem. R12L | 18.5 | 9.3 | | | 19.0 | 8.0 | | | | | | | | |
| | | | Rem. RXP12 | 18.0 | 8.9 | | | 18.5 | 8.1 | | | | | | | | |
| | | | Win. WAA12 (White) | 18.0 | 8.6 | 19.0 | 8.4 | 18.5 | 8.0 | | | | | | | | |
| | | | Win. WT12 (Orange) | | | 19.0 | 8.1 | | | | | | | | | | |
| | | | Windjammer | 18.5 | 8.2 | 19.5 | 7.1 | 20.5 | 6.6 | | | | | | | | |
| | | Rem. 209P | Fed. 12C1 | 18.5 | 8.3 | | | 20.0 | 7.0 | | | | | | | | |
| | | | Fed. 12S3 | | | 19.0 | 8.5 | | | | | | | | | | |
| | | Win. 209 | Fed. 12C1 | 18.5 | 8.6 | | | 19.5 | 7.5 | | | | | | | | |
| | | | Fed. 12S3 | | | 19.0 | 8.9 | | | | | | | | | | |
| 1 1/8 | 1,200 | CCI 209M | Fed. 12C1 | 20.0 | 8.7 | | | 21.5 | 7.7 | 24.0 | 7.2 | | | | | | |
| | | CCI 209SC | Fed. 12S3 | | | 20.5 | 9.8 | | | | | | | | | | |
| | | Fed. 209A | Fed. 12C1 | 19.0 | 9.3 | | | 20.0 | 8.6 | 22.0 | 8.2 | | | | | | |
| | | | Fed. 12S3 | 19.0 | 9.8 | 20.5 | 10.4 | 21.0 | 7.8 | 22.0 | 7.2 | | | | | | |
| | | | Fiocchi FTW1 | 19.5 | 9.5 | | | 21.0 | 8.2 | | | | | | | | |
| | | | Hornady Versalite | 19.0 | 8.9 | 20.0 | 10.1 | 21.0 | 8.3 | 22.0 | 7.9 | | | | | | |
| | | | Lage Uniwad | 18.5 | 9.4 | | | 20.0 | 8.8 | 22.0 | 8.0 | | | | | | |
| | | | Red PC | 19.0 | 10.3 | | | 21.0 | 8.8 | 22.5 | 8.4 | | | | | | |
| | | | Rem. Fig. 8 | | | 20.0 | 9.8 | | | | | | | | | | |
| | | | Rem. R12H | 19.0 | 9.2 | | | 19.5 | 8.8 | | | | | | | | |
| | | | Rem. R12L | 19.5 | 9.5 | | | 20.0 | 8.6 | 22.0 | 7.8 | | | | | | |
| | | | Rem. RXP12 | 19.0 | 9.9 | | | 20.0 | 8.6 | 21.0 | 8.0 | | | | | | |
| | | | Win. WAA12 (White) | 19.0 | 10.5 | 20.5 | 10.4 | 19.5 | 9.0 | 21.0 | 8.6 | | | | | | |
| | | | Win. WT12 (Orange) | | | 20.5 | 10.2 | | | | | | | | | | |
| | | | Windjammer | 19.0 | 8.7 | 20.0 | 9.1 | 22.0 | 7.7 | 23.5 | 7.6 | | | | | | |
| | | Rem. 209P | Fed. 12C1 | 20.0 | 9.2 | | | 22.0 | 7.8 | 24.0 | 7.0 | | | | | | |
| | | | Fed. 12S3 | | | 21.0 | 9.7 | | | | | | | | | | |
| | | Win. 209 | Fed. 12C1 | 19.5 | 9.8 | | | 21.0 | 8.1 | 23.0 | 7.6 | | | | | | |
| | | | Fed. 12S3 | | | 20.5 | 9.7 | | | | | | | | | | |
| 1 1/8 | 1,255 | CCI 209M | Fed. 12C1 | 21.0 | 10.5 | | | 22.5 | 8.5 | 24.5 | 8.4 | | | | | | |
| | | Fed. 209A | Fed. 12C1 | 21.0 | 10.2 | | | 21.5 | 7.9 | 22.5 | 8.9 | | | | | | |
| | | | Fed. 12S3 | 21.0 | 9.4 | | | 23.0 | 9.1 | 23.0 | 8.3 | | | | | | |
| | | | Hornady Versalite | 20.5 | 9.9 | | | 22.5 | 8.5 | 23.0 | 8.7 | | | | | | |
| | | | Red PC | 20.5 | 10.7 | | | 22.5 | 9.6 | 24.5 | 8.5 | | | | | | |
| | | | Rem. R12H | | | | | 21.5 | 9.9 | 22.5 | 9.0 | | | | | | |
| | | | Rem. RXP12 | 21.0 | 10.0 | | | 21.5 | 9.3 | 22.0 | 8.5 | | | | | | |
| | | | Win. WAA12 (White) | | | | | 21.5 | 10.5 | 22.0 | 9.5 | | | | | | |
| | | Rem. 209P | Fed. 12C1 | 21.5 | 10.7 | | | 23.5 | 7.5 | 26.0 | 7.5 | | | | | | |
| | | Win. 209 | Fed. 12C1 | 21.0 | 10.3 | | | 22.5 | 9.0 | 24.5 | 8.3 | | | | | | |

# 12-Gauge, 2 3/4 inch Fed. Paper Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,255 • Shot Wt. - 1 1/8 | | | | | | | | | | | | | | | | | |
| 1 1/8 | 1,310 | CCI 209M | Fed. 12C1 | | | | | | | 26.5 | 9.4 | | | | | | |
| | | Fed. 209A | Fed. 12C1 | | | | | 24.5 | 9.9 | 26.5 | 9.0 | | | | | | |
| | | | Fed. 12S3 | | | | | | | 26.5 | 9.7 | | | | | | |
| | | | Rem. RXP12 | | | | | 24.5 | 9.8 | 26.5 | 8.6 | | | | | | |
| | | | Win. WAA12 (White) | | | | | 24.5 | 9.7 | 26.5 | 9.1 | | | | | | |
| | | Rem. 209P | Fed. 12C1 | | | | | 25.5 | 9.3 | 27.5 | 8.3 | | | | | | |
| | | Win. 209 | Fed. 12C1 | | | | | | | 26.5 | 9.2 | | | | | | |
| 1 1/8 | 1,400 | Fed. 209A | Win. WAA12F114 | | | | | | | | | 30.0 | 10.7 | | | | |
| 1 1/4 | 1,220 | CCI 209M | Fed. 12S4 | | | | | 23.0 | 10.5 | 25.5 | 9.7 | | | | | | |
| | | Fed. 209A | Fed. 12C1 | | | | | 21.0 | 10.6 | 22.5 | 9.5 | | | | | | |
| | | | Fed. 12S4 | | | | | 23.0 | 10.5 | 24.0 | 9.8 | | | | | | |
| | | | Hornady Versalite | | | | | 23.0 | 9.6 | 23.0 | 8.8 | | | | | | |
| | | | Rem. SP12 | | | | | 21.0 | 9.6 | 22.0 | 9.6 | | | | | | |
| | | | Win. WAA12 (White) | | | | | 21.0 | 10.5 | 22.0 | 10.0 | | | | | | |
| | | | Win. WAA12F114 | | | | | 23.0 | 9.9 | 23.5 | 9.5 | | | | | | |
| | | Rem. 209P | Fed. 12S4 | | | | | 23.0 | 9.9 | 25.5 | 9.1 | | | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | 24.5 | 10.6 | | | | | | |
| 1 1/4 | 1,330 | CCI 209M | Fed. 12S4 | | | | | | | 28.0 | 10.7 | 29.5 | 9.9 | 37.0 | 9.0 | | |
| | | Fed. 209A | Fed. 12S4 | | | | | | | | | | | 37.0 | 10.3 | | |
| | | | Rem. RP12 | | | | | | | | | 29.0 | 9.4 | | | | |
| | | | Rem. SP12 | | | | | | | | | 29.5 | 9.3 | | | | |
| | | | Win. WAA12F114 | | | | | | | | | 29.5 | 9.2 | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | | | | | 37.5 | 10.3 | | |
| 1 1/4 | 1,400 | Fed. 209A | Rem. RP12 | | | | | | | | | | | 39.0 | 10.5 | | |
| 1 3/8 | 1,240 | CCI 209M | Rem. SP12 | | | | | | | | | | | 34.5 | 9.5 | | |
| | | Fed. 209A | Rem. SP12 | | | | | | | | | | | 34.0 | 9.9 | | |
| | | Rem. 209P | Rem. SP12 | | | | | | | | | | | 36.0 | 8.3 | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | | | 34.5 | 9.5 | | |
| 1 3/8 | 1,295 | CCI 209M | Rem. SP12 | | | | | | | | | | | 37.0 | 10.6 | | |
| | | Fed. 209A | Rem. SP12 | | | | | | | | | | | 35.5 | 10.3 | | |
| | | Rem. 209P | Rem. SP12 | | | | | | | | | | | 38.0 | 8.6 | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | | | 36.5 | 10.2 | | |
| 1 3/8 | 1,350 | Fed. 209A | Rem. RP12 | | | | | | | | | | | 37.5 | 10.7 | | |
| 1 1/2 | 1,150 | Fed. 209A | Rem. RP12 | | | | | | | | | | | 32.5 | 8.8 | | |
| | | | Rem. SP12 | | | | | | | | | 25.0 | 10.2 | | | | |
| 1 1/2 | 1,205 | CCI 209M | Rem. RP12 | | | | | | | | | | | 35.0 | 9.4 | | |
| | | Fed. 209A | Rem. RP12 | | | | | | | | | | | 34.0 | 9.3 | | |
| | | Rem. 209P | Rem. RP12 | | | | | | | | | | | 34.5 | 10.3 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 35.0 | 9.6 | | |

# 12-Gauge, 2 3/4 inch Fiocchi Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,200 | Fio. 616 | Fed. 12SO | 17.5 | 6.7 | | | | | | | | | | | | |
| | | | Purple PC | 17.5 | 6.4 | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 17.0 | 6.9 | | | | | | | | | | | | |
| | | | Win. WAA12SL | 17.0 | 6.7 | | | | | | | | | | | | |
| 7/8 | 1,250 | Fio. 616 | Fed. 12SO | 19.0 | 6.9 | | | | | | | | | | | | |
| | | | Purple PC | 19.0 | 6.7 | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 18.5 | 7.0 | | | | | | | | | | | | |
| | | | Win. WAA12SL | 18.5 | 6.8 | | | | | | | | | | | | |
| 7/8 | 1,300 | Fio. 616 | Fed. 12SO | 19.5 | 8.8 | | | | | | | | | | | | |
| | | | Purple PC | 20.0 | 8.6 | | | 22.5 | 7.7 | | | | | | | | |
| | | | Rem. TGT 12 | 20.0 | 7.9 | | | 22.0 | 7.6 | | | | | | | | |
| | | | Win. WAA12SL | 20.0 | 8.1 | | | 22.0 | 7.9 | | | | | | | | |
| 1 | 1,200 | Fio. 616 | Fed. 12SO | 18.0 | 9.1 | | | 20.0 | 8.1 | | | | | | | | |
| | | | Purple PC | 18.0 | 8.1 | | | 20.0 | 7.2 | | | | | | | | |
| | | | Rem. TGT 12 | 18.0 | 8.5 | | | 20.0 | 7.4 | | | | | | | | |
| | | | Win. WAA12SL | 18.0 | 8.5 | | | 20.0 | 7.9 | | | | | | | | |
| 1 | 1,255 | Fio. 616 | Purple PC | 19.0 | 9.5 | | | 21.0 | 8.2 | | | | | | | | |
| | | | Rem. TGT 12 | 19.0 | 9.3 | | | 21.0 | 8.4 | | | | | | | | |
| | | | Win. WAA12SL | 19.0 | 9.5 | | | 21.0 | 8.1 | | | | | | | | |
| 1 | 1,290 | Fio. 616 | Purple PC | 21.0 | 9.8 | | | 23.0 | 8.4 | | | | | | | | |
| | | | Rem. TGT 12 | 20.5 | 10.1 | | | 22.5 | 8.6 | | | | | | | | |
| | | | Win. WAA12SL | 20.5 | 10.3 | | | 22.5 | 9.4 | | | | | | | | |
| 1 1/8 | 1,090 | Fio. 616 | Claybuster 3118-12AR | | | 18.0 | 7.1 | | | | | | | | | | |
| | | | Fed. 12C1 | | | | | 18.5 | 6.8 | | | | | | | | |
| | | | Fed. 12S3 | 16.0 | 8.4 | 17.5 | 7.4 | 18.5 | 7.2 | | | | | | | | |
| | | | Fiocchi FTW1 | 16.5 | 8.1 | | | 18.5 | 6.8 | | | | | | | | |

# 12-Gauge, 2 3/4 inch Fiocchi Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,090 • Shot Wt. - 1 1/8 | | | | | | | | | | | | | | | | | |
| | | | Fiocchi TL1 | | | 18.0 | 7.4 | | | | | | | | | | |
| | | | Hornady Versalite | 16.5 | 8.1 | | | 18.5 | 7.1 | | | | | | | | |
| | | | Rem. Fig. 8 | 16.0 | 8.0 | | | 18.5 | 6.5 | | | | | | | | |
| | | | Rem. RXP12 | 16.5 | 8.7 | | | 18.5 | 6.7 | | | | | | | | |
| | | | Win. WAA12 (White) | 17.0 | 7.6 | | | 18.5 | 7.0 | | | | | | | | |
| | | | Win. WAA12SL | 17.0 | 7.3 | | | | | | | | | | | | |
| 1 1/8 | 1,145 | Fio. 616 | Claybuster 3118-12AR | | | 19.5 | 8.0 | | | | | | | | | | |
| | | | Fed. 12C1 | 18.0 | 8.8 | | | 19.5 | 7.5 | | | | | | | | |
| | | | Fed. 12S3 | 18.0 | 9.2 | 19.0 | 8.7 | 20.0 | 7.5 | | | | | | | | |
| | | | Fiocchi FTW1 | 17.5 | 8.8 | | | 20.0 | 7.3 | | | | | | | | |
| | | | Fiocchi TL1 | | | 19.5 | 8.5 | | | | | | | | | | |
| | | | Hornady Versalite | 17.5 | 9.0 | | | 19.5 | 7.5 | | | | | | | | |
| | | | Rem. Fig. 8 | 18.0 | 8.4 | | | 20.0 | 7.1 | | | | | | | | |
| | | | Rem. RXP12 | 18.0 | 8.7 | | | 20.0 | 7.2 | | | | | | | | |
| | | | Win. WAA12 (White) | 18.0 | 9.0 | | | 20.0 | 7.6 | | | | | | | | |
| | | | Win. WAA12SL | 18.0 | 8.3 | | | | | | | | | | | | |
| | | | Windjammer | 18.5 | 7.4 | | | 19.5 | 7.2 | | | | | | | | |
| 1 1/8 | 1,200 | Fio. 616 | Claybuster 3118-12AR | | | 21.0 | 9.0 | | | | | | | | | | |
| | | | Fed. 12C1 | 19.0 | 9.5 | | | 21.0 | 8.4 | 23.5 | 6.9 | | | | | | |
| | | | Fed. 12S3 | 19.0 | 9.7 | 20.5 | 9.4 | | | | | | | | | | |
| | | | Fiocchi FTW1 | 19.0 | 9.3 | | | 21.0 | 7.8 | 23.5 | 7.4 | | | | | | |
| | | | Fiocchi TL1 | | | 20.5 | 9.2 | | | | | | | | | | |
| | | | Hornady Versalite | 18.5 | 9.5 | | | 21.0 | 8.2 | 24.0 | 7.1 | | | | | | |
| | | | Rem. Fig. 8 | 19.5 | 9.6 | | | 21.5 | 8.5 | 23.5 | 7.0 | | | | | | |
| | | | Rem. RXP12 | 19.5 | 9.7 | | | 21.5 | 7.9 | 22.5 | 7.2 | | | | | | |
| | | | Win. WAA12 (White) | 19.5 | 9.4 | | | 21.5 | 8.1 | 23.5 | 6.8 | | | | | | |
| | | | Windjammer | 20.0 | 8.6 | | | 21.0 | 7.7 | 24.0 | 6.4 | | | | | | |
| 1 1/8 | 1,250 | Fio. 616 | Claybuster 3118-12AR | | | 22.5 | 10.7 | | | | | | | | | | |
| | | | Fed. 12C1 | 20.5 | 10.7 | | | 22.5 | 9.3 | 24.5 | 8.0 | 26.0 | 7.5 | | | | |
| | | | Fed. 12S3 | | | 22.0 | 10.3 | | | | | | | | | | |
| | | | Fiocchi FTW1 | 21.0 | 10.5 | | | 23.0 | 9.2 | 24.5 | 8.2 | 26.0 | 8.3 | | | | |
| | | | Fiocchi TL1 | | | 22.0 | 10.2 | | | | | | | | | | |
| | | | Hornady Versalite | | | | | 22.5 | 9.3 | 25.0 | 7.8 | 25.5 | 7.7 | | | | |
| | | | Rem. Fig. 8 | 20.5 | 10.2 | | | 23.0 | 8.8 | 24.5 | 7.6 | 26.0 | 7.3 | | | | |
| | | | Rem. RXP12 | | | | | 23.0 | 9.2 | 23.5 | 8.2 | 26.0 | 7.5 | | | | |
| | | | Win. WAA12 (White) | | | | | 23.0 | 8.9 | 25.0 | 7.8 | 26.0 | 7.9 | | | | |
| | | | Windjammer | 21.0 | 9.4 | | | 22.5 | 9.0 | 25.5 | 6.9 | 26.5 | 7.7 | | | | |
| 1 1/8 | 1,310 | CCI 209M | Rem. RXP12 | | | | | 24.0 | 10.0 | 26.5 | 8.4 | | | | | | |
| | | Fio. 616 | Fed. 12S3 | | | | | 25.0 | 9.6 | 27.0 | 8.6 | | | | | | |
| | | Win. 209 | Win. WAA12 (White) | | | | | 25.0 | 8.7 | 26.5 | 8.3 | | | | | | |
| 1 1/4 | 1,220 | CCI 209M | Rem. R12H | | | | | 24.5 | 8.0 | | | | | | | | |
| | | Fio. 616 | Fed. 12S4 | | | | | 23.0 | 9.7 | 25.0 | 8.8 | | | | | | |
| | | Win. 209 | Win. WAA12F114 | | | | | 23.0 | 10.0 | 25.0 | 8.7 | | | | | | |
| 1 1/4 | 1,275 | CCI 209M | Rem. SP12 | | | | | | | | | 28.0 | 8.3 | | | | |
| | | Fio. 616 | Fed. 12S4 | | | | | | | 27.0 | 10.3 | 28.0 | 9.5 | | | | |
| | | Win. 209 | Win. WAA12F114 | | | | | | | 27.0 | 10.0 | 28.0 | 8.4 | | | | |
| 1 1/4 | 1,300 | CCI 209M | Rem. SP12 | | | | | | | | | 30.0 | 9.2 | 41.0 | 7.6 | | |
| | | Fio. 616 | Fed. 12S4 | | | | | | | | | 30.0 | 9.5 | 40.0 | 8.3 | | |
| | | | Rem. SP12 | | | | | | | | | 30.5 | 8.6 | 41.0 | 7.7 | | |
| | | | Win. WAA12F114 | | | | | | | | | 30.0 | 9.2 | 39.5 | 7.5 | | |
| | | Win. 209 | Win. WAA12F114 | | | | | | | | | 30.0 | 10.1 | 38.5 | 8.3 | | |
| 1 3/8 | 1,295 | CCI 209M | Rem. RP12 | | | | | | | | | | | 37.0 | 9.6 | | |
| | | Fio. 616 | Rem. RP12 | | | | | | | | | | | 38.0 | 9.1 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 38.0 | 9.5 | | |
| 1 3/8 | 1,350 | CCI 209M | Rem. RP12 | | | | | | | | | | | 40.0 | 10.1 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 40.0 | 9.9 | | |
| 1 1/2 | 1,150 | Fio. 616 | Rem. RP12 | | | | | | | | | | | 32.5 | 8.7 | | |
| 1 1/2 | 1,205 | CCI 209M | Rem. RP12 | | | | | | | | | | | 33.0 | 9.5 | | |
| | | Fio. 616 | Rem. RP12 | | | | | | | | | | | 36.5 | 9.0 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 35.5 | 8.6 | | |
| 1 1/2 | 1,260 | CCI 209M | Rem. RP12 | | | | | | | | | | | 36.5 | 10.6 | | |
| | | Fio. 616 | Rem. RP12 | | | | | | | | | | | 37.5 | 9.6 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 36.5 | 10.3 | | |

# 12-Gauge, 2 3/4 inch Rem. Premier, STS Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,200 | Rem. 209P | Claybuster 4100-12 B | 17.5 | 7.1 | 18.9 | 5.2 | | | | | | | | | | |
| | | | Fed. 12SO | 17.0 | 7.2 | | | | | | | | | | | | |
| | | | Purple PC | 17.5 | 6.8 | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 17.0 | 6.8 | | | | | | | | | | | | |
| | | | Win. WAA12L (Gray) | 16.5 | 8.0 | 18.0 | 5.8 | | | | | | | | | | |
| | | | Win. WAA12SL | 17.0 | 7.0 | | | | | | | | | | | | |
| 7/8 | 1,250 | Rem. 209P | Claybuster 4100-12 B | 18.0 | 7.4 | 19.6 | 5.9 | | | | | | | | | | |
| | | | Fed. 12SO | 18.0 | 7.8 | | | | | | | | | | | | |
| | | | Purple PC | 18.5 | 6.9 | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 18.5 | 7.1 | | | | | | | | | | | | |
| | | | Win. WAA12L (Gray) | 17.5 | 8.7 | 19.0 | 6.8 | | | | | | | | | | |
| | | | Win. WAA12SL | 18.5 | 7.8 | | | | | | | | | | | | |
| 7/8 | 1,300 | Rem. 209P | Claybuster 1100-12 | | | 20.5 | 6.9 | | | | | | | | | | |
| | | | Claybuster 4100-12 B | 19.0 | 8.1 | 20.5 | 6.7 | | | | | | | | | | |
| | | | Fed. 12SO | 20.0 | 8.1 | 20.5 | 7.7 | 22.0 | 8.0 | | | | | | | | |
| | | | Purple PC | 20.0 | 7.5 | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 20.5 | 8.2 | 20.5 | 7.0 | 22.0 | 7.1 | | | | | | | | |
| | | | Win. WAA12L (Gray) | 18.5 | 9.1 | 20.0 | 7.2 | | | | | | | | | | |
| | | | Win. WAA12SL | 20.5 | 8.0 | 20.5 | 7.9 | 21.5 | 7.9 | | | | | | | | |
| 7/8 | 1,400 | Rem. 209P | Win. WAA12L (Gray) | | | 22.0 | 10.3 | | | | | | | | | | |
| 1 | 1,150 | Rem. 209P | Claybuster 1100-12 | 16.5 | 7.4 | | | 18.5 | 7.0 | | | | | | | | |
| | | | Rem. TGT 12 | 17.0 | 8.3 | 17.0 | 6.9 | 18.0 | 6.6 | | | | | | | | |
| | | | Win. WAA12L (Gray) | 16.5 | 8.1 | 17.0 | 7.5 | 18.0 | 6.3 | | | | | | | | |
| 1 | 1,200 | Rem. 209P | Claybuster 1100-12 | 17.8 | 8.0 | 19.5 | 7.5 | 19.2 | 7.5 | | | | | | | | |
| | | | Duster - Green | 17.5 | 10.0 | 19.0 | 7.7 | 19.5 | 7.5 | | | | | | | | |
| | | | Fed. 12SO | 18.0 | 9.0 | 19.5 | 7.9 | 19.5 | 8.6 | | | | | | | | |
| | | | Purple PC | 18.5 | 8.3 | | | 20.5 | 7.0 | | | | | | | | |
| | | | Rem. TGT 12 | 18.0 | 8.7 | 19.0 | 7.0 | 20.0 | 8.2 | | | | | | | | |
| | | | Win. WAA12SL | 18.0 | 9.6 | 19.0 | 7.6 | 19.5 | 8.6 | | | | | | | | |
| 1 | 1,255 | Rem. 209P | Claybuster 1100-12 | 18.7 | 8.8 | 20.5 | 8.0 | 21.0 | 8.3 | | | | | | | | |
| | | | Duster - Green | 18.5 | 10.9 | 20.0 | 8.4 | 22.0 | 8.8 | | | | | | | | |
| | | | Fed. 12SO | 19.5 | 10.6 | 20.5 | 8.6 | 21.5 | 9.3 | | | | | | | | |
| | | | Purple PC | 19.5 | 8.9 | | | 21.5 | 8.5 | | | | | | | | |
| | | | Rem. TGT 12 | 19.0 | 9.5 | 20.5 | 8.0 | 21.0 | 8.5 | | | | | | | | |
| | | | Win. WAA12SL | 19.5 | 10.1 | 20.5 | 8.7 | 21.5 | 8.9 | | | | | | | | |
| 1 | 1,290 | CCI 209M | Rem. R12L | 20.0 | 10.3 | | | 22.0 | 9.1 | | | | | | | | |
| | | Rem. 209P | Claybuster 1100-12 | 19.7 | 9.4 | 22.5 | 8.5 | 22.0 | 8.5 | | | | | | | | |
| | | | Fed. 12SO | 20.0 | 10.5 | 21.5 | 9.9 | 22.0 | 8.7 | | | | | | | | |
| | | | Purple PC | 20.5 | 9.1 | | | 22.5 | 8.2 | | | | | | | | |
| | | | Rem. Fig. 8 | 21.5 | 9.1 | | | 22.0 | 8.1 | | | | | | | | |
| | | | Rem. R12L | 20.5 | 9.9 | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 21.0 | 10.7 | 22.5 | 8.7 | 22.5 | 8.4 | | | | | | | | |
| | | | Win. WAA12F1 | 20.5 | 9.1 | | | 23.0 | 7.2 | | | | | | | | |
| | | | Win. WAA12SL | 20.5 | 10.4 | 21.5 | 9.2 | 22.5 | 9.0 | | | | | | | | |
| | | Win. 209 | Rem. R12L | 20.0 | 10.1 | | | 22.0 | 8.7 | | | | | | | | |
| 1 1/8 | 1,000 | Rem. 209P | Rem. Fig. 8 | 14.5 | 7.2 | 15.0 | 6.5 | | | | | | | | | | |
| 1 1/8 | 1,090 | CCI 209M | Fed. 12S3 | 16.0 | 10.1 | | | 17.5 | 8.5 | | | | | | | | |
| | | | Fiocchi FTW1 | 16.5 | 9.7 | | | 17.5 | 8.5 | | | | | | | | |
| | | | Red PC | 16.5 | 9.2 | | | 18.0 | 7.4 | | | | | | | | |
| | | | Rem. Fig. 8 | 16.5 | 9.1 | | | 18.0 | 8.4 | | | | | | | | |
| | | | Rem. RXP12 | 16.0 | 9.3 | | | 17.5 | 8.6 | | | | | | | | |
| | | | Win. WAA12 (White) | 16.0 | 9.8 | | | 17.0 | 8.7 | | | | | | | | |
| | | | Windjammer | 16.5 | 8.3 | | | 18.0 | 7.6 | | | | | | | | |
| | | Fio. 616 | Rem. Fig. 8 | 16.5 | 9.0 | | | | | | | | | | | | |
| | | Rem. 209P | Claybuster 3118-12 | 16.2 | 8.6 | 17.5 | 6.9 | 17.5 | 7.8 | | | | | | | | |
| | | | Duster-Blue | 16.0 | 9.7 | 17.0 | 8.0 | 17.5 | 8.2 | | | | | | | | |
| | | | Fed. 12S3 | 16.0 | 10.3 | 17.5 | 8.2 | | | | | | | | | | |
| | | | Fiocchi FTW1 | 16.5 | 8.5 | | | | | | | | | | | | |
| | | | Red PC | 16.5 | 8.7 | 17.5 | 7.0 | | | | | | | | | | |
| | | | Rem. Fig. 8 | 16.5 | 8.3 | 17.5 | 7.1 | 18.5 | 8.5 | | | | | | | | |
| | | | Rem. RXP12 | 16.0 | 8.7 | 17.0 | 7.5 | 18.0 | 8.7 | | | | | | | | |
| | | | Win. WAA12 (White) | 16.0 | 9.4 | 17.0 | 8.1 | 18.0 | 8.5 | | | | | | | | |
| | | | Win. WT12 (Orange) | 15.5 | 9.0 | 17.0 | 7.3 | 18.0 | 8.1 | | | | | | | | |
| | | | Windjammer | 16.5 | 7.9 | 18.0 | 6.9 | 18.0 | 7.3 | | | | | | | | |
| | | Win. 209 | Rem. Fig. 8 | 16.5 | 8.9 | | | | | | | | | | | | |
| 1 1/8 | 1,145 | CCI 209 | Rem. Fig. 8 | 17.5 | 8.6 | | | 19.5 | 7.1 | | | | | | | | |

# 12-Gauge, 2 3/4 inch Rem. Premier, STS Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,145 • Shot Wt. - 1 1/8 | | | | | | | | | | | | | | | | | |
| | | CCI 209M | Fed. 12S3 | 17.5 | 10.6 | | | 19.0 | 8.9 | | | | | | | | |
| | | | Fiocchi FTW1 | 17.0 | 9.9 | | | 19.5 | 9.3 | | | | | | | | |
| | | | Hornady Versalite | 17.0 | 9.1 | | | 19.0 | 8.0 | | | | | | | | |
| | | | Red PC | 17.0 | 9.4 | | | 19.0 | 7.7 | | | | | | | | |
| | | | Rem. Fig. 8 | 17.5 | 9.3 | | | 19.0 | 8.8 | | | | | | | | |
| | | | Rem. RXP12 | 17.0 | 9.6 | | | 19.0 | 9.1 | | | | | | | | |
| | | | Win. WAA12 (White) | 16.5 | 10.2 | | | 19.0 | 9.4 | | | | | | | | |
| | | | Windjammer | 17.0 | 9.0 | | | 19.5 | 7.9 | | | | | | | | |
| | | CCI 209SC | Fed. 12S3 | 18.5 | 10.4 | | | 19.5 | 9.5 | | | | | | | | |
| | | | Rem. Fig. 8 | 18.0 | 10.4 | 18.5 | 8.9 | 20.5 | 9.9 | | | | | | | | |
| | | | Win. WAA12 (White) | | | | | 20.0 | 10.6 | | | | | | | | |
| | | | Windjammer | 18.5 | 9.8 | | | | | | | | | | | | |
| | | Fed. 209A | Fed. S3 | 16.5 | 10.1 | | | 19.0 | 9.9 | | | | | | | | |
| | | | Red PC | 17.0 | 10.7 | | | 19.5 | 10.0 | | | | | | | | |
| | | | Rem. Fig. 8 | 16.5 | 10.3 | 18.5 | 9.2 | 19.5 | 10.1 | | | | | | | | |
| | | | Rem. RXP12 | 16.0 | 10.6 | | | 19.5 | 10.5 | | | | | | | | |
| | | | Windjammer | 17.5 | 10.5 | | | 20.0 | 9.6 | | | | | | | | |
| | | Fio. 616 | Rem. Fig. 8 | 17.5 | 8.9 | | | 19.0 | 7.8 | | | | | | | | |
| | | Rem. 209P | Claybuster 3118-12 | 17.0 | 8.8 | 19.0 | 8.4 | 19.0 | 8.7 | | | | | | | | |
| | | | Duster-Blue | 17.0 | 9.8 | 18.0 | 8.9 | 18.5 | 9.0 | | | | | | | | |
| | | | Fed. 12S3 | 18.0 | 10.1 | 18.5 | 9.1 | 19.0 | 8.8 | | | | | | | | |
| | | | Fiocchi FTW1 | 17.5 | 9.7 | | | 19.5 | 8.8 | | | | | | | | |
| | | | Hornady Versalite | 17.5 | 9.0 | | | 19.0 | 8.0 | | | | | | | | |
| | | | Lage Uniwad | 17.5 | 9.9 | | | 19.0 | 8.0 | | | | | | | | |
| | | | Red PC | 17.5 | 9.0 | 19.0 | 8.2 | 19.0 | 7.6 | | | | | | | | |
| | | | Rem. Fig. 8 | 18.0 | 9.2 | 19.0 | 7.6 | 19.0 | 7.3 | | | | | | | | |
| | | | Rem. RXP12 | 17.5 | 8.9 | 18.5 | 8.3 | 19.0 | 7.7 | | | | | | | | |
| | | | Win. WAA12 (White) | 17.0 | 10.1 | 18.0 | 9.0 | 19.0 | 6.7 | | | | | | | | |
| | | | Win. WT12 (Orange) | 18.5 | 8.8 | 18.5 | 8.9 | 19.5 | 8.3 | | | | | | | | |
| | | | Windjammer | 17.5 | 8.9 | 19.0 | 7.9 | 19.5 | 7.8 | | | | | | | | |
| | | Win. 209 | Rem. Fig. 8 | 18.0 | 9.5 | 18.5 | 9.0 | 19.0 | 8.1 | | | | | | | | |
| 1 1/8 | 1,200 | CCI 209 | Rem. Fig. 8 | 19.5 | 9.9 | | | 21.0 | 8.7 | 22.5 | 8.5 | | | | | | |
| | | CCI 209M | Fed. 12S3 | | | | | 20.5 | 10.2 | 22.0 | 9.7 | | | | | | |
| | | | Fiocchi FTW1 | 18.5 | 10.6 | | | 20.5 | 9.7 | | | | | | | | |
| | | | Hornady Versalite | 19.0 | 10.4 | | | 20.0 | 9.2 | 22.0 | 8.8 | | | | | | |
| | | | Red PC | 19.0 | 10.4 | | | 20.5 | 9.0 | 22.5 | 8.7 | | | | | | |
| | | | Rem. Fig. 8 | 18.5 | 10.4 | | | 20.0 | 9.3 | 22.5 | 9.5 | | | | | | |
| | | | Rem. RXP12 | 18.5 | 10.5 | | | 20.5 | 9.2 | 22.5 | 9.5 | | | | | | |
| | | | Win. WAA12 (White) | | | | | 21.0 | 9.6 | 22.0 | 9.3 | | | | | | |
| | | | Windjammer | 18.5 | 9.7 | | | 20.5 | 8.7 | 23.5 | 8.2 | | | | | | |
| | | CCI 209SC | Fed. 12S3 | | | | | 20.0 | 10.6 | | | | | | | | |
| | | | Rem. Fig. 8 | | | 20.0 | 10.3 | 21.0 | 10.6 | | | | | | | | |
| | | | Windjammer | | | | | 22.0 | 10.4 | | | | | | | | |
| | | Fed. 209A | Rem. Fig. 8 | 17.0 | 10.4 | 20.0 | 10.7 | 20.5 | 10.5 | 23.0 | 9.2 | | | | | | |
| | | | Rem. RXP12 | 17.0 | 10.1 | | | 21.0 | 10.4 | 22.0 | 9.1 | | | | | | |
| | | Fio. 616 | Rem. Fig. 8 | 19.5 | 10.6 | | | 20.0 | 8.7 | 23.0 | 8.5 | | | | | | |
| | | Rem. 209P | Claybuster 3118-12 | 18.5 | 9.8 | 20.0 | 9.5 | 20.3 | 9.7 | 22.2 | 7.3 | | | | | | |
| | | | Duster-Blue | 18.5 | 10.3 | 20.0 | 10.2 | 20.0 | 9.8 | 22.7 | 7.8 | | | | | | |
| | | | Fed. 12S3 | | | 20.0 | 10.6 | 20.5 | 9.7 | 22.0 | 9.1 | | | | | | |
| | | | Fiocchi FTW1 | 18.5 | 10.7 | | | 20.5 | 9.9 | | | | | | | | |
| | | | Hornady Versalite | | | | | 20.0 | 8.7 | 22.0 | 7.9 | | | | | | |
| | | | Red PC | 19.5 | 10.1 | 20.5 | 9.7 | 21.0 | 8.5 | 22.5 | 7.8 | | | | | | |
| | | | Rem. Fig. 8 | 19.0 | 10.1 | 20.5 | 9.1 | 21.0 | 8.8 | 22.5 | 8.2 | | | | | | |
| | | | Rem. RXP12 | 19.0 | 10.0 | 20.5 | 10.2 | 20.5 | 8.7 | 22.5 | 8.3 | | | | | | |
| | | | Win. WAA12 (White) | 18.3 | 10.3 | 19.2 | 11.0 | 21.0 | 8.9 | 22.0 | 8.9 | | | | | | |
| | | | Win. WT12 (Orange) | 19.5 | 10.7 | 20.0 | 10.6 | 21.5 | 8.7 | 23.5 | 8.3 | | | | | | |
| | | | Windjammer | 18.5 | 9.4 | 20.5 | 9.1 | 20.5 | 8.2 | 23.5 | 7.0 | | | | | | |
| | | Win. 209 | Rem. Fig. 8 | 19.0 | 10.4 | 20.0 | 10.2 | 20.0 | 8.6 | 22.5 | 8.4 | | | | | | |
| 1 1/8 | 1,250 | CCI 209M | Fed. 12S3 | | | | | 21.5 | 10.6 | 23.5 | 10.2 | 24.5 | 9.9 | | | | |
| | | | Hornady Versalite | | | | | 21.5 | 10.2 | 23.5 | 9.9 | 24.5 | 9.9 | | | | |
| | | | Red PC | | | | | 22.0 | 9.6 | 24.0 | 9.4 | 25.0 | 9.5 | | | | |
| | | | Rem. RXP12 | | | | | 22.0 | 9.6 | 24.0 | 10.4 | 24.5 | 9.8 | | | | |
| | | | Win. WAA12 (White) | | | | | 22.5 | 10.7 | 24.0 | 10.3 | 24.5 | 10.4 | | | | |
| | | | Windjammer | | | | | 22.0 | 9.4 | 25.0 | 9.3 | 25.0 | 9.4 | | | | |
| | | Fio. 616 | Rem. RXP12 | | | | | 22.0 | 9.1 | 23.5 | 9.1 | | | | | | |
| | | Rem. 209P | Claybuster 3118-12 | | | 21.5 | 10.6 | 21.0 | 9.8 | | | | | | | | |
| | | | Duster-Blue | | | | | 21.5 | 10.3 | | | | | | | | |
| | | | Rem. Fig. 8 | | | 21.5 | 9.9 | 21.5 | 10.7 | | | | | | | | |
| | | | Rem. RXP12 | | | 21.0 | 10.5 | 21.1 | 10.0 | | | | | | | | |
| | | | Win. WT12 (Orange) | | | | | 22.0 | 10.6 | | | | | | | | |
| | | Win. 209 | Rem. RXP12 | | | | | 22.0 | 9.4 | 24.5 | 8.8 | | | | | | |
| 1 1/8 | 1,310 | CCI 209M | Rem. RXP12 | | | | | | | 25.0 | 10.0 | 26.5 | 9.7 | | | | |

# 12-Gauge, 2 3/4 inch Rem. Premier, STS Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,310 • Shot Wt. - 1 1/8 | | | | | | | | | | | | | | | | | |
| | | Fio. 616 | Rem. RXP12 | | | | | | | 26.0 | 9.9 | 27.5 | 9.3 | | | | |
| | | Rem. 209P | Hornady Versalite | | | | | | | 25.5 | 9.9 | 27.0 | 8.8 | | | | |
| | | | Rem. RXP12 | | | | | | | 24.5 | 9.7 | 27.5 | 8.4 | | | | |
| | | | Win. WAA12 (White) | | | | | | | 25.0 | 10.5 | 27.0 | 8.8 | | | | |
| | | | Windjammer | | | | | | | 26.5 | 8.6 | 28.5 | 8.6 | | | | |
| | | Win. 209 | Rem. RXP12 | | | | | | | 26.0 | 9.8 | 27.0 | 9.5 | | | | |
| 1 1/4 | 1,220 | CCI 209M | Rem. SP12 | | | | | | | 23.5 | 10.3 | 24.5 | 10.0 | | | | |
| | | Fio. 616 | Rem. SP12 | | | | | | | 23.0 | 9.6 | 24.5 | 9.3 | | | | |
| | | Rem. 209P | Fed. 12S4 | | | | | | | 23.0 | 10.7 | 25.0 | 10.4 | | | | |
| | | | Hornady Versalite | | | | | | | 23.5 | 9.4 | 25.0 | 8.4 | | | | |
| | | | Rem. SP12 | | | | | | | 23.5 | 9.3 | 25.0 | 9.6 | | | | |
| | | | Win. WAA12F114 | | | | | | | 24.0 | 10.1 | 24.5 | 9.3 | | | | |
| | | Win. 209 | Rem. SP12 | | | | | | | 23.5 | 10.0 | 24.5 | 9.6 | | | | |
| 1 1/4 | 1,275 | CCI 209M | Rem. SP12 | | | | | | | | | | | 34.5 | 9.8 | | |
| | | Fio. 616 | Rem. SP12 | | | | | | | | | | | 35.5 | 9.3 | | |
| | | Rem. 209P | Fed. 12S4 | | | | | | | | | | | 34.0 | 10.1 | | |
| | | | Rem. SP12 | | | | | | | | | 27.0 | 10.7 | 34.5 | 8.6 | | |
| | | | Win. WAA12F114 | | | | | | | | | 26.5 | 10.5 | | | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | 26.0 | 10.6 | 35.5 | 9.1 | | |
| 1 1/4 | 1,330 | CCI 209M | Rem. SP12 | | | | | | | | | | | 35.5 | 10.3 | | |
| | | Fio. 616 | Rem. SP12 | | | | | | | | | | | 35.5 | 9.9 | | |
| | | Rem. 209P | Claybuster 1138-12 | | | | | | | | | | | 37.5 | 10.2 | | |
| | | | Rem. SP12 | | | | | | | | | | | 37.5 | 9.7 | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | | | 36.5 | 9.9 | | |
| 1 3/8 | 1,240 | CCI 209M | Rem. SP12 | | | | | | | | | | | 34.0 | 9.4 | | |
| | | Fio. 616 | Rem. SP12 | | | | | | | | | | | 34.0 | 9.1 | | |
| | | Rem. 209P | Claybuster 1138-12 | | | | | | | | | | | 34.0 | 9.9 | | |
| | | | Rem. SP12 | | | | | | | | | | | 35.0 | 9.3 | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | | | 35.0 | 9.1 | | |
| 1 3/8 | 1,295 | CCI 209M | Rem. RP12 | | | | | | | | | | | 35.5 | 10.4 | | |
| | | Fio. 616 | Rem. RP12 | | | | | | | | | | | 35.5 | 10.0 | | |
| | | Rem. 209P | Rem. RP12 | | | | | | | | | | | 36.5 | 9.9 | | |
| | | | Rem. SP12 | | | | | | | | | | | 37.5 | 10.3 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 35.5 | 10.5 | | |
| 1 1/2 | 1,150 | CCI 209M | Rem. RP12 | | | | | | | | | | | 31.0 | 9.9 | | |
| | | Fio. 616 | Rem. RP12 | | | | | | | | | | | 31.0 | 9.8 | | |
| | | Rem. 209P | Claybuster 1138-12 | | | | | | | | | | | 32.0 | 10.6 | | |
| | | | Rem. RP12 | | | | | | | | | | | 31.0 | 9.9 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 31.5 | 10.1 | | |
| 1 1/2 | 1,205 | CCI 209M | Rem. RP12 | | | | | | | | | | | 33.0 | 10.1 | | |
| | | Fio. 616 | Rem. RP12 | | | | | | | | | | | 33.0 | 10.1 | | |
| | | Rem. 209P | Rem. RP12 | | | | | | | | | | | 33.0 | 10.2 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 33.0 | 10.2 | | |

# 12-Gauge, 2 3/4 inch Rem.-Peters Unibody SP Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,290 | CCI 209 | Rem. R12L | 21.0 | 9.7 | | | 23.5 | 8.1 | | | | | | | | |
| | | CCI 209M | Rem. R12L | 20.0 | 10.6 | | | 22.5 | 8.1 | | | | | | | | |
| | | Rem. 209 | Rem. R12L | | | | | 22.0 | 9.2 | | | | | | | | |
| | | | Rem. RXP12 | | | | | 21.5 | 9.9 | | | | | | | | |
| | | | Win. WAA12F1 | | | | | 21.0 | 9.9 | | | | | | | | |
| | | Win. 209 | Rem. R12L | 20.0 | 10.7 | | | 21.5 | 8.8 | | | | | | | | |
| 1 1/8 | 1,145 | CCI 209 | Rem. RXP12 | 18.0 | 10.1 | | | 18.5 | 9.2 | | | | | | | | |
| | | CCI 209M | Rem. RXP12 | 17.0 | 10.2 | | | 18.5 | 9.1 | | | | | | | | |
| | | Rem. 209 | Fed. 12S3 | 17.0 | 10.1 | | | 19.0 | 9.2 | | | | | | | | |
| | | | Hornady Versalite | 17.0 | 8.8 | | | 18.0 | 8.5 | | | | | | | | |
| | | | Rem. R12H | 17.5 | 9.3 | | | 19.0 | 8.5 | | | | | | | | |
| | | | Rem. RXP12 | | | | | 19.0 | 8.8 | | | | | | | | |
| | | | Win. WAA12 (White) | 17.0 | 10.2 | | | 17.5 | 10.0 | | | | | | | | |
| | | Win. 209 | Rem. RXP12 | 17.0 | 10.5 | | | 18.5 | 8.8 | | | | | | | | |
| 1 1/8 | 1,200 | CCI 209 | Rem. RXP12 | | | | | 21.0 | 8.8 | 23.0 | 8.3 | | | | | | |
| | | CCI 209M | Rem. RXP12 | | | | | 20.0 | 10.0 | 22.0 | 8.8 | | | | | | |
| | | Rem. 209 | Fed. 12S3 | | | | | | | 21.5 | 8.8 | | | | | | |
| | | | Hornady Versalite | 18.0 | 10.0 | | | 19.0 | 9.9 | 21.0 | 8.2 | | | | | | |
| | | | Rem. R12H | 18.0 | 10.0 | | | 19.5 | 9.4 | 21.5 | 8.3 | | | | | | |
| | | | Rem. RXP12 | 18.0 | 10.5 | | | 20.0 | 9.8 | 22.0 | 9.1 | | | | | | |
| | | | Win. WAA12 (White) | | | | | 19.5 | 10.0 | 21.5 | 8.4 | | | | | | |
| | | | Windjammer | 18.5 | 9.6 | | | 20.5 | 8.3 | 22.0 | 7.7 | | | | | | |

# 12-Gauge, 2 3/4 inch Rem.-Peters Unibody SP Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,200 • Shot Wt. - 1 1/8 | | | | | | | | | | | | | | | | | |
| | | Win. 209 | Rem. RXP12 | | | | | 20.5 | 9.8 | 22.0 | 8.9 | | | | | | |
| 1 1/8 | 1,255 | CCI 209 | Rem. RXP12 | | | | | 22.5 | 10.5 | 23.0 | 8.8 | | | | | | |
| | | CCI 209M | Rem. RXP12 | | | | | 21.0 | 10.1 | 23.0 | 9.7 | | | | | | |
| | | Rem. 209 | Fed. 12S3 | | | | | | | 22.5 | 9.8 | | | | | | |
| | | | Rem. R12H | | | | | 21.0 | 10.4 | 22.5 | 8.3 | | | | | | |
| | | | Rem. RXP12 | | | | | 20.5 | 10.3 | 22.5 | 9.2 | | | | | | |
| | | | Win. WAA12 (White) | | | | | | | 22.5 | 9.2 | | | | | | |
| | | Win. 209 | Rem. RXP12 | | | | | 21.5 | 10.7 | 23.5 | 9.8 | | | | | | |
| 1 1/8 | 1,310 | CCI 209 | Rem. R12H | | | | | | | 25.5 | 9.6 | 27.0 | 9.3 | | | | |
| | | CCI 209M | Rem. R12H | | | | | | | 25.0 | 10.7 | 26.5 | 10.3 | | | | |
| | | Rem. 209 | Rem. R12H | | | | | | | 24.5 | 10.1 | 25.5 | 10.1 | | | | |
| | | | Rem. RXP12 | | | | | | | 24.0 | 10.0 | 25.5 | 10.2 | | | | |
| | | | Win. WAA12 (White) | | | | | | | 24.0 | 10.3 | 24.5 | 10.2 | | | | |
| | | Win. 209 | Rem. R12H | | | | | | | 25.0 | 10.7 | 26.5 | 10.7 | | | | |
| 1 1/4 | 1,220 | CCI 209 | Rem. SP12 | | | | | | | 24.5 | 9.6 | 25.5 | 9.1 | | | | |
| | | CCI 209M | Rem. SP12 | | | | | | | 23.0 | 10.1 | | | 32.0 | 8.5 | | |
| | | Rem. 209 | Rem. SP12 | | | | | | | 22.5 | 9.7 | 23.5 | 9.4 | | | | |
| | | | Win. WAA12F114 | | | | | | | | | 23.0 | 10.1 | 30.0 | 10.3 | | |
| | | Win. 209 | Rem. SP12 | | | | | | | 23.0 | 10.6 | 24.5 | 10.5 | 33.0 | 9.0 | | |
| 1 1/4 | 1,275 | CCI 209 | Rem. SP12 | | | | | | | | | | | 35.5 | 8.9 | | |
| | | CCI 209M | Rem. SP12 | | | | | | | | | | | 33.5 | 9.8 | | |
| | | Rem. 209 | Rem. SP12 | | | | | | | | | | | 32.0 | 10.2 | | |
| | | | Win. WAA12F114 | | | | | | | | | | | 32.0 | 10.0 | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | | | 35.0 | 10.3 | | |
| 1 1/4 | 1,330 | CCI 209 | Rem. RP12 | | | | | | | | | | | 37.5 | 9.7 | | |
| | | CCI 209M | Rem. RP12 | | | | | | | | | | | 35.5 | 10.4 | | |
| 1 3/8 | 1,240 | CCI 209 | Rem. RP12 | | | | | | | | | | | 36.0 | 10.1 | | |
| | | CCI 209M | Rem. RP12 | | | | | | | | | | | 32.5 | 10.5 | | |
| 1 1/2 | 1,150 | CCI 209M | Rem. RP12 | | | | | | | | | | | 32.0 | 8.4 | | |
| | | Fio. 616 | Rem. RP12 | | | | | | | | | | | 31.5 | 9.2 | | |
| | | Rem. 209P | Activ T42 | | | | | | | | | | | 31.5 | 9.6 | | |
| | | | Rem. RP12 | | | | | | | | | | | 32.5 | 8.0 | | |
| | | Win. 209 | Rem. RP12 | | | | | | | | | | | 32.0 | 8.3 | | |
| 1 5/8 | 1,115 | CCI 209M | Activ T42 | | | | | | | | | | | 29.5 | 10.3 | | |
| | | Fed. 209A | Activ T42 | | | | | | | | | | | 29.0 | 10.4 | | |
| | | Fio. 616 | Activ T42 | | | | | | | | | | | 29.5 | 10.4 | | |
| | | Rem. 209P | Activ T42 | | | | | | | | | | | 29.5 | 10.5 | | |
| | | Win. 209 | Activ T42 | | | | | | | | | | | 29.5 | 10.4 | | |

# 12-Gauge, 2 3/4 inch Win. Plastic AA Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,200 | Win. 209 | Claybuster 4100-12 B | 17.5 | 6.9 | 18.5 | 5.6 | | | | | | | | | | |
| | | | Fed. 12SO | 16.0 | 8.0 | | | | | | | | | | | | |
| | | | Purple PC | 17.0 | 7.5 | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 16.5 | 7.3 | | | | | | | | | | | | |
| | | | Win. WAA12L (Gray) | 16.5 | 7.9 | 17.6 | 6.2 | | | | | | | | | | |
| | | | Win. WAA12SL | 16.5 | 7.3 | | | | | | | | | | | | |
| 7/8 | 1,250 | Win. 209 | Claybuster 4100-12 B | 18.0 | 7.6 | 19.5 | 6.1 | | | | | | | | | | |
| | | | Fed. 12SO | 17.5 | 9.0 | | | | | | | | | | | | |
| | | | Purple PC | 18.0 | 8.4 | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 18.0 | 8.4 | | | | | | | | | | | | |
| | | | Win. WAA12SL | 18.0 | 9.3 | | | | | | | | | | | | |
| | | | Win. WAA12L (Gray) | 17.5 | 8.6 | 18.5 | 7.2 | | | | | | | | | | |
| 7/8 | 1,300 | Win. 209 | Claybuster 1100-12 | | | 21.0 | 7.2 | | | | | | | | | | |
| | | | Claybuster 4100-12 B | 18.5 | 7.9 | 20.5 | 6.9 | | | | | | | | | | |
| | | | Fed. 12SO | 19.0 | 9.4 | 21.0 | 8.3 | 21.0 | 8.9 | | | | | | | | |
| | | | Purple PC | 19.5 | 9.0 | 20.5 | 7.2 | 21.5 | 7.9 | | | | | | | | |
| | | | Rem. TGT 12 | 19.0 | 9.3 | 20.5 | 7.6 | 21.0 | 8.4 | | | | | | | | |
| | | | Win. WAA12SL | 19.0 | 10.3 | 20.5 | 8.4 | 20.5 | 8.8 | | | | | | | | |
| | | | Win. WAA12L (Gray) | 18.5 | 9.3 | 19.5 | 8.0 | 20.0 | 8.3 | | | | | | | | |
| 7/8 | 1,400 | Win. 209 | Win. WAA12L (Gray) | | | 22.0 | 10.2 | | | | | | | | | | |
| 1 | 1,150 | Win. 209 | Claybuster 1100-12 | 17.0 | 7.9 | 18.0 | 6.7 | 18.5 | 7.1 | | | | | | | | |
| | | | Win. WAA12L (Gray) | 16.5 | 8.0 | 18.0 | 6.7 | 18.5 | 7.6 | | | | | | | | |
| | | | Win. WAA12SL | 16.5 | 7.9 | 17.5 | 7.6 | 18.0 | 8.0 | | | | | | | | |
| 1 | 1,200 | Win. 209 | Claybuster 1100-12 | 18.0 | 8.6 | 18.5 | 6.9 | 19.8 | 7.7 | | | | | | | | |
| | | | Duster - Green | | | 19.0 | 8.1 | 19.5 | 8.3 | | | | | | | | |
| | | | Fed. 12SO | 18.0 | 9.6 | 19.0 | 8.7 | 19.5 | 8.4 | | | | | | | | |
| | | | Purple PC | 18.0 | 8.9 | | | 19.5 | 7.0 | | | | | | | | |

# 12-Gauge, 2 3/4 inch Win. Plastic AA Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,200 • Shot Wt. - 1 | | | | | | | | | | | | | | | | | |
| | | | Rem. TGT 12 | 18.0 | 9.2 | 19.0 | 8.0 | 19.5 | 7.9 | | | | | | | | |
| | | | Win. WAA12SL | 18.0 | 10.2 | 19.0 | 8.2 | 19.5 | 8.5 | | | | | | | | |
| | | | Win. WT12 (Orange) | 17.5 | 10.6 | 19.0 | 8.4 | 19.5 | 8.1 | | | | | | | | |
| 1 | 1,255 | Win. 209 | Claybuster 1100-12 | 19.0 | 9.3 | 20.5 | 8.8 | 21.0 | 8.2 | | | | | | | | |
| | | | Duster - Green | | | 20.0 | 8.9 | 20.5 | 9.2 | | | | | | | | |
| | | | Fed. 12SO | | | 20.0 | 10.0 | | | | | | | | | | |
| | | | Purple PC | 19.0 | 9.7 | | | 21.5 | 8.7 | | | | | | | | |
| | | | Rem. TGT 12 | 19.5 | 9.8 | 20.0 | 9.1 | 21.0 | 8.8 | | | | | | | | |
| | | | Win. WAA12SL | 19.0 | 10.5 | 20.0 | 9.5 | 21.0 | 9.2 | | | | | | | | |
| 1 | 1,290 | CCI 209M | Win. WAA12 (White) | 18.5 | 10.4 | | | 21.5 | 9.9 | | | | | | | | |
| | | Win. 209 | Claybuster 1100-12 | 19.5 | 8.9 | 21.5 | 9.2 | 22.0 | 9.1 | | | | | | | | |
| | | | Duster - Green | | | 21.5 | 9.7 | 22.0 | 9.5 | | | | | | | | |
| | | | Fed. 12C1 | 20.0 | 10.2 | | | 21.0 | 8.8 | | | | | | | | |
| | | | Fed. 12S3 | 20.0 | 9.9 | | | 22.5 | 9.7 | | | | | | | | |
| | | | Fed. 12SO | | | 20.5 | 10.2 | | | | | | | | | | |
| | | | Purple PC | 20.0 | 10.4 | | | 22.0 | 9.0 | | | | | | | | |
| | | | Rem. RXP12 | 20.0 | 10.1 | | | 21.0 | 8.8 | | | | | | | | |
| | | | Rem. TGT 12 | | | 21.0 | 9.5 | 22.0 | 9.7 | | | | | | | | |
| | | | Win. WAA12 (White) | 19.0 | 10.5 | | | 20.0 | 8.7 | | | | | | | | |
| | | | Win. WAA12SL | 19.5 | 11.2 | 21.5 | 10.3 | 21.5 | 9.5 | | | | | | | | |
| 1 1/8 | 1,090 | CCI 209M | Win. WAA12 (White) | 17.0 | 9.8 | | | | | | | | | | | | |
| | | CCI 209SC | Win. WAA12 (White) | | | 17.0 | 7.9 | | | | | | | | | | |
| | | Fed. 209A | Win. WAA12 (White) | | | 17.0 | 8.7 | | | | | | | | | | |
| | | Fio. 616 | Win. WAA12 (White) | 16.0 | 8.9 | | | | | | | | | | | | |
| | | Rem. 209P | Win. WAA12 (White) | 17.0 | 8.1 | 17.0 | 8.0 | | | | | | | | | | |
| | | Win. 209 | Claybuster 1100-12 | 16.0 | 8.0 | 17.0 | 7.6 | 17.5 | 7.8 | | | | | | | | |
| | | | Duster-Blue | 15.5 | 10.3 | 17.0 | 8.3 | 17.5 | 8.3 | | | | | | | | |
| | | | Fed. 12S3 | 17.0 | 10.4 | | | 18.0 | 9.7 | | | | | | | | |
| | | | Hornady Versalite | 16.5 | 9.0 | | | 17.5 | 7.8 | | | | | | | | |
| | | | Red PC | 16.0 | 9.1 | 17.0 | 7.3 | 18.0 | 7.3 | | | | | | | | |
| | | | Rem. Fig. 8 | 16.0 | 8.3 | 17.5 | 8.1 | 18.0 | 7.4 | | | | | | | | |
| | | | Rem. RXP12 | 16.5 | 9.0 | 17.0 | 9.1 | 17.5 | 7.6 | | | | | | | | |
| | | | Win. WAA12 (White) | 16.0 | 9.5 | 17.0 | 9.0 | 17.5 | 8.1 | | | | | | | | |
| | | | Win. WAA12SL | 16.0 | 9.3 | 16.8 | 8.4 | 18.0 | 8.0 | | | | | | | | |
| | | | Win. WT12 (Orange) | | | | | 16.5 | 9.0 | | | | | | | | |
| 1 1/8 | 1,145 | CCI 209M | Win. WAA12 (White) | 17.5 | 10.4 | | | 18.5 | 10.1 | | | | | | | | |
| | | CCI 209SC | Rem. Fig. 8 | 18.0 | 10.5 | | | 20.5 | 9.7 | | | | | | | | |
| | | | Win. WAA12 (White) | 17.5 | 10.6 | 18.5 | 9.6 | 19.5 | 10.3 | | | | | | | | |
| | | | Windjammer | 18.0 | 9.9 | | | 20.5 | 9.5 | | | | | | | | |
| | | Fed. 209A | Claybuster 3118-12 | 17.0 | 9.6 | | | 18.5 | 8.4 | | | | | | | | |
| | | | Hornady Versalite | 17.0 | 10.3 | | | 18.5 | 9.3 | | | | | | | | |
| | | | Red PC | 17.0 | 10.1 | | | 18.5 | 8.7 | | | | | | | | |
| | | | Rem. Fig. 8 | 17.0 | 9.8 | | | 18.5 | 8.6 | | | | | | | | |
| | | | Win. WAA12 (White) | 17.0 | 10.6 | 18.5 | 9.8 | 18.0 | 9.3 | | | | | | | | |
| | | | Windjammer | 17.0 | 9.0 | | | 18.5 | 8.2 | | | | | | | | |
| | | Fio. 616 | Win. WAA12 (White) | 17.0 | 10.2 | | | 18.5 | 9.4 | | | | | | | | |
| | | Rem. 209P | Win. WAA12 (White) | 17.5 | 8.7 | 19.0 | 8.7 | | | | | | | | | | |
| | | Win. 209 | Claybuster 3118-12 | 16.8 | 9.1 | 18.5 | 9.0 | 19.1 | 9.3 | | | | | | | | |
| | | | Duster-Blue | 16.5 | 10.6 | 18.0 | 9.0 | 19.0 | 9.3 | | | | | | | | |
| | | | Fed. 12C1 | 17.5 | 9.4 | | | 18.5 | 8.1 | | | | | | | | |
| | | | Hornady Versalite | 18.0 | 9.5 | | | 19.5 | 8.0 | | | | | | | | |
| | | | Red PC | 17.5 | 9.5 | 18.5 | 8.6 | 19.0 | 8.3 | | | | | | | | |
| | | | Rem. Fig. 8 | 17.5 | 9.9 | 19.0 | 9.4 | 19.0 | 8.6 | | | | | | | | |
| | | | Rem. RXP12 | 17.0 | 8.4 | 19.0 | 9.4 | 18.0 | 8.1 | | | | | | | | |
| | | | Win. WAA12 (White) | 17.0 | 10.0 | 18.0 | 9.4 | 18.0 | 8.5 | | | | | | | | |
| | | | Win. WT12 (Orange) | 16.5 | 10.7 | 18.5 | 9.6 | 18.0 | 9.4 | | | | | | | | |
| | | | Windjammer | 17.5 | 9.3 | 18.5 | 8.1 | 18.0 | 8.4 | | | | | | | | |
| 1 1/8 | 1,200 | CCI 209M | Win. WAA12 (White) | 18.5 | 10.5 | | | 20.0 | 10.4 | 21.5 | 10.3 | | | | | | |
| | | CCI 209SC | Rem. Fig. 8 | 18.5 | 10.4 | | | 22.0 | 10.4 | | | | | | | | |
| | | | Win. WAA12 (White) | | | 19.5 | 10.1 | 20.5 | 10.7 | | | | | | | | |
| | | | Windjammer | | | | | 22.0 | 10.2 | | | | | | | | |
| | | Fed. 209A | Claybuster 3118-12 | 18.5 | 10.5 | | | 19.5 | 9.3 | | | | | | | | |
| | | | Hornady Versalite | 18.0 | 10.7 | | | 19.5 | 10.4 | | | | | | | | |
| | | | Red PC | 18.0 | 10.0 | | | 19.5 | 10.5 | | | | | | | | |
| | | | Rem. Fig. 8 | 18.5 | 10.2 | | | 19.5 | 9.4 | | | | | | | | |
| | | | Win. WAA12 (White) | | | 19.5 | 10.8 | 19.0 | 10.2 | | | | | | | | |
| | | | Windjammer | 18.0 | 10.0 | | | 20.0 | 9.2 | | | | | | | | |
| | | Fio. 616 | Win. WAA12 (White) | 18.0 | 10.5 | | | 20.0 | 9.5 | 21.5 | 9.1 | | | | | | |
| | | Rem. 209P | Win. WAA12 (White) | 19.0 | 9.5 | 21.0 | 9.6 | 20.0 | 9.8 | 23.0 | 7.5 | | | | | | |
| | | Win. 209 | Claybuster 3118-12 | 18.5 | 10.5 | 19.5 | 10.2 | 20.0 | 9.8 | 22.5 | 8.8 | | | | | | |
| | | | Duster-Blue | 19.0 | 10.8 | 19.5 | 10.0 | 20.0 | 9.4 | 22.0 | 8.3 | | | | | | |
| | | | Fed. 12C1 | 18.5 | 9.7 | | | 19.5 | 9.0 | 22.0 | 8.9 | | | | | | |
| | | | Hornady Versalite | 19.0 | 9.7 | | | 21.0 | 9.0 | 21.0 | 8.2 | | | | | | |

# 12-Gauge, 2 3/4 inch Win. Plastic AA Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,200 • Shot Wt. - 1 1/8 | | | | | | | | | | | | | | | | | |
| | | | Red PC | 18.5 | 10.5 | 20.0 | 10.1 | 20.5 | 9.8 | 23.5 | 9.5 | | | | | | |
| | | | Rem. Fig. 8 | 18.5 | 10.7 | 20.0 | 9.8 | 20.5 | 9.5 | 22.5 | 8.3 | | | | | | |
| | | | Rem. RXP12 | 18.5 | 9.8 | 20.5 | 10.7 | 19.5 | 8.9 | 22.0 | 8.7 | | | | | | |
| | | | Win. WAA12 (White) | 18.0 | 10.4 | 19.5 | 10.3 | 19.5 | 9.3 | 21.0 | 9.1 | | | | | | |
| | | | Win. WT12 (Orange) | 17.0 | 10.7 | 19.5 | 10.7 | 20.0 | 9.2 | 21.5 | 9.0 | | | | | | |
| | | | Windjammer | 18.5 | 9.9 | 20.5 | 9.2 | 21.0 | 9.0 | 22.5 | 8.2 | | | | | | |
| 1 1/8 | 1,250 | Fio. 616 | Win. WAA12 (White) | 22.0 | 10.5 | | | 23.5 | 10.1 | | | | | | | | |
| | | Rem. 209P | Rem. Fig. 8 | | | 22.5 | 9.4 | | | | | | | | | | |
| | | | Win. WAA12 (White) | | | | | | | 24.0 | 9.3 | | | | | | |
| | | Win. 209 | Claybuster 3118-12 | | | 20.5 | 10.7 | | | | | | | | | | |
| | | | Fed. 12C1 | | | | | 21.0 | 10.2 | 23.0 | 9.5 | 25.0 | 9.4 | | | | |
| | | | Hornady Versalite | | | | | 22.0 | 9.9 | 24.0 | 9.4 | 24.5 | 9.2 | | | | |
| | | | Red PC | | | 21.5 | 10.8 | 22.0 | 10.3 | 24.5 | 10.0 | 25.0 | 9.1 | | | | |
| | | | Rem. Fig. 8 | | | | | 22.0 | 10.3 | 24.0 | 9.0 | 25.0 | 9.1 | | | | |
| | | | Rem. RXP12 | | | 21.0 | 10.8 | 21.0 | 9.5 | 23.0 | 9.2 | 25.0 | 9.2 | | | | |
| | | | Win. WAA12 (White) | | | | | 21.5 | 10.5 | 23.5 | 9.4 | 25.0 | 9.5 | | | | |
| | | | Win. WT12 (Orange) | | | | | 21.5 | 9.8 | 22.5 | 9.5 | 23.5 | 9.4 | | | | |
| 1 1/8 | 1,310 | CCI 209M | Win. WAA12 (White) | | | | | | | 25.5 | 9.7 | | | | | | |
| | | Rem. 209P | Win. WAA12 (White) | | | | | | | 26.0 | 9.7 | 27.0 | 8.1 | | | | |
| | | Win. 209 | Hornady Versalite | | | | | | | 25.0 | 10.3 | 26.5 | 9.9 | | | | |
| | | | Red PC | | | | | 23.0 | 10.2 | 25.0 | 9.1 | | | | | | |
| | | | Rem. RXP12 | | | | | | | 24.0 | 9.8 | 26.5 | 9.1 | | | | |
| | | | Win. WAA12 (White) | | | | | | | 25.5 | 10.0 | 26.5 | 9.3 | | | | |
| 1 1/4 | 1,220 | CCI 209M | Win. WAA12F114 | | | | | | | 23.5 | 9.9 | 24.0 | 9.1 | | | | |
| | | Fio. 616 | Win. WAA12F114 | | | | | | | 23.0 | 10.3 | 25.0 | 9.8 | | | | |
| | | Rem. 209P | Win. WAA12F114 | | | | | | | 24.0 | 10.0 | 25.5 | 8.3 | | | | |
| | | Win. 209 | Claybuster 1138-12 | | | | | | | | | 25.0 | 9.6 | | | | |
| | | | Hornady Versalite | | | | | | | 24.0 | 9.8 | 25.5 | 8.5 | | | | |
| | | | Rem. RP12 | | | | | | | 22.5 | 9.5 | | | | | | |
| | | | Win. WAA12F114 | | | | | | | 23.5 | 9.9 | 25.0 | 8.4 | | | | |
| 1 1/4 | 1,275 | Rem. 209P | Win. WAA12F114 | | | | | | | | | 27.0 | 9.4 | | | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | | | 35.0 | 8.2 | | |
| 1 1/4 | 1,330 | Win. 209 | Rem. RP12 | | | | | | | | | | | 38.0 | 10.2 | | |
| | | | Rem. SP12 | | | | | | | | | | | 37.0 | 10.3 | | |
| | | | Win WAA12R | | | | | | | | | | | 37.5 | 10.2 | | |
| 1 1/4 | 1,375 | Win. 209 | Claybuster 1138-12 | | | | | | | | | | | 37.5 | 10.6 | | |
| 1 3/8 | 1,200 | Win. 209 | Rem. RP12 | | | | | | | | | | | 33.0 | 10.4 | | |
| 1 3/8 | 1,240 | Win. 209 | Rem. SP12 | | | | | | | | | | | 34.5 | 10.3 | | |
| 1 1/2 | 1,150 | Win. 209 | Rem. RP12 | | | | | | | | | | | 30.5 | 10.8 | | |
| | | | Win WAA12R | | | | | | | | | | | 31.0 | 10.4 | | |
| 1 1/2 | 1,205 | Win. 209 | Claybuster 1138-12 | | | | | | | | | | | 33.7 | 10.1 | | |

# 12-Gauge, 2 3/4 inch Win. Polyformed with Plastic Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,290 | CCI 209M | Win. WAA12F1 | 21.0 | 8.4 | | | 23.0 | 7.5 | | | | | | | | |
| | | Fed. 209 | Win. WAA12F1 | 21.0 | 8.2 | | | | | | | | | | | | |
| | | Fio. 616 | Win. WAA12F1 | 21.5 | 7.9 | | | 23.0 | 7.4 | | | | | | | | |
| | | Rem. 209P | Win. WAA12F1 | 21.5 | 7.8 | | | | | | | | | | | | |
| | | Win. 209 | Fed. 12SO | 21.0 | 9.6 | | | | | | | | | | | | |
| | | | Purple PC | 21.5 | 7.9 | | | 24.0 | 6.8 | | | | | | | | |
| | | | Rem. Fig. 8 | 21.5 | 8.5 | | | 23.0 | 7.8 | | | | | | | | |
| | | | Win. WAA12F1 | 22.0 | 7.6 | | | 23.5 | 7.0 | | | | | | | | |
| 1 1/8 | 1,090 | CCI 209M | Win. WAA12 (White) | 17.0 | 8.0 | | | 18.5 | 7.0 | | | | | | | | |
| | | Fio. 616 | Win. WAA12 (White) | 17.0 | 7.6 | | | 18.5 | 7.1 | | | | | | | | |
| | | Rem. 209P | Win. WAA12 (White) | 16.5 | 6.7 | | | | | | | | | | | | |
| | | Win. 209 | Fed. 12S3 | 17.5 | 7.8 | | | | | | | | | | | | |
| | | | Hornady Versalite | 16.5 | 7.9 | | | 18.5 | 6.7 | | | | | | | | |
| | | | Red PC | 17.0 | 7.5 | | | | | | | | | | | | |
| | | | Rem. Fig. 8 | 17.0 | 6.9 | | | 18.5 | 6.7 | | | | | | | | |
| | | | Win. WAA12 (White) | 16.5 | 7.8 | | | | | | | | | | | | |
| 1 1/8 | 1,145 | CCI 209M | Win. WAA12 (White) | 18.0 | 9.0 | | | 20.0 | 7.4 | | | | | | | | |
| | | Fio. 616 | Win. WAA12 (White) | 18.5 | 8.3 | | | 20.0 | 6.8 | | | | | | | | |
| | | Rem. 209P | Win. WAA12 (White) | 18.5 | 8.1 | | | | | | | | | | | | |
| | | Win. 209 | Fed. 12S3 | 18.0 | 8.9 | | | | | | | | | | | | |
| | | | Hornady Versalite | 18.0 | 8.6 | | | 20.0 | 7.2 | | | | | | | | |
| | | | Red PC | 18.5 | 7.8 | | | 20.5 | 6.8 | | | | | | | | |
| | | | Rem. Fig. 8 | 18.0 | 8.0 | | | 19.5 | 7.0 | | | | | | | | |
| | | | Win. WAA12 (White) | 18.0 | 8.5 | | | 20.5 | 7.3 | | | | | | | | |

## 12-Gauge, 2 3/4 inch Win. Polyformed with Plastic Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,145 • Shot Wt. - 1 1/8 | | | | | | | | | | | | | | | | | |
| 1 1/8 | 1,200 | Fio. 616 | Win. WAA12 (White) | 19.5 | 9.3 | | | 21.5 | 7.6 | 23.5 | 7.2 | | | | | | |
| | | Rem. 209P | Win. WAA12 (White) | 19.5 | 9.0 | | | | | 23.5 | 7.9 | | | | | | |
| | | Win. 209 | Fed. 12S3 | 19.0 | 9.6 | | | 21.5 | 8.3 | 23.5 | 8.3 | | | | | | |
| | | | Hornady Versalite | 19.0 | 9.4 | | | 21.5 | 7.7 | 23.0 | 7.7 | | | | | | |
| | | | Red PC | 19.5 | 8.4 | | | 22.0 | 7.6 | 23.5 | 7.6 | | | | | | |
| | | | Rem. Fig. 8 | 19.0 | 8.7 | | | 21.5 | 8.2 | 23.0 | 7.4 | | | | | | |
| | | | Win. WAA12 (White) | 19.5 | 8.9 | | | 22.0 | 8.7 | 23.0 | 7.6 | | | | | | |
| 1 1/8 | 1,255 | CCI 209M | Win. WAA12 (White) | 21.5 | 10.0 | | | 23.0 | 8.8 | 25.0 | 8.5 | | | | | | |
| | | Fio. 616 | Win. WAA12 (White) | 21.5 | 10.1 | | | 23.0 | 8.6 | 25.0 | 8.0 | | | | | | |
| | | Rem. 209P | Win. WAA12 (White) | 21.5 | 9.5 | | | | | 25.5 | 7.7 | | | | | | |
| | | Win. 209 | Fed. 12S3 | | | | | 23.5 | 8.6 | 25.0 | 8.4 | | | | | | |
| | | | Hornady Versalite | 21.5 | 9.7 | | | 24.0 | 8.3 | 25.0 | 8.0 | | | | | | |
| | | | Red PC | 21.0 | 9.9 | | | 23.5 | 8.0 | 25.0 | 7.9 | | | | | | |
| | | | Win. WAA12 (White) | 21.0 | 9.4 | | | 23.5 | 8.8 | 25.0 | 8.5 | | | | | | |
| 1 1/8 | 1,310 | CCI 209M | Win. WAA12 (White) | 22.0 | 9.4 | | | 25.0 | 9.0 | 26.0 | 8.5 | | | | | | |
| | | Fio. 616 | Win. WAA12 (White) | 22.5 | 10.6 | | | 24.5 | 8.9 | 27.5 | 9.2 | | | | | | |
| | | Rem. 209P | Win. WAA12 (White) | 22.5 | 10.2 | | | 25.0 | 8.8 | 27.0 | 9.0 | | | | | | |
| | | Win. 209 | Fed. 12S3 | | | | | 24.5 | 9.9 | 26.0 | 9.4 | | | | | | |
| | | | Hornady Versalite | 22.5 | 10.3 | | | 25.0 | 8.9 | 26.5 | 9.0 | | | | | | |
| | | | Red PC | 22.5 | 10.2 | | | 25.5 | 8.7 | 26.5 | 8.6 | | | | | | |
| | | | Win. WAA12 (White) | | | | | 25.5 | 8.9 | 26.5 | 8.6 | | | | | | |

## 12-Gauge, 3 inch Fed. Hi Power Plastic Shells with Rolled Paper Base Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 3/8 | 1,295 | Fed. 209A | Fed. 12S3 | | | | | | | | | 30.5 | 10.0 | | | | |
| | | | Rem. RXP12 | | | | | | | | | 30.5 | 9.3 | 38.0 | 9.0 | | |
| | | | Win. WAA12 (White) | | | | | | | | | 30.5 | 9.7 | 38.0 | 8.8 | | |
| 1 3/8 | 1,350 | Fed. 209A | Fed. 12S4 | | | | | | | | | | | 40.0 | 9.4 | | |
| | | | Rem. SP12 | | | | | | | | | | | 40.0 | 8.9 | | |
| 1 1/2 | 1,315 | Fed. 209A | Fed. 12S3 | | | | | | | | | | | 38.0 | 9.7 | | |
| | | | Rem. RXP12 | | | | | | | | | | | 38.5 | 9.6 | | |
| | | | Win. WAA12 (White) | | | | | | | | | | | 37.5 | 9.8 | | |
| 1 5/8 | 1,280 | Fed. 209A | Rem. SP12 | | | | | | | | | | | 39.0 | 10.4 | | |
| 1 3/4 | 1,245 | Fed. 209A | Rem. RP12 | | | | | | | | | | | 39.0 | 10.5 | | |
| 1 7/8 | 1,155 | Fed. 209A | Rem. RP12 | | | | | | | | | | | 34.0 | 10.5 | | |
| | | | Rem. SP12 | | | | | | | | | | | 36.0 | 10.3 | | |

## 12-Gauge, 3 inch Fed. One-Piece Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 3/8 | 1,295 | Fed. 209A | Fed. 12S3 | | | | | | | | | 31.0 | 10.5 | 40.5 | 7.9 | | |
| | | | Rem. RXP12 | | | | | | | | | 32.0 | 10.1 | | | | |
| | | | Win. WAA12 (White) | | | | | | | | | | | 38.0 | 9.8 | | |
| 1 3/8 | 1,350 | Fed. 209A | Rem. RXP12 | | | | | | | | | | | 42.0 | 8.0 | | |
| | | | Win. WAA12 (White) | | | | | | | | | | | 44.0 | 9.9 | | |
| 1 1/2 | 1,315 | Fed. 209A | Fed. 12S4 | | | | | | | | | | | 40.0 | 9.7 | | |
| | | | Rem. SP12 | | | | | | | | | | | 40.0 | 9.0 | | |
| 1 5/8 | 1,280 | Fed. 209A | Fed. 12S4 | | | | | | | | | | | 40.0 | 10.1 | | |
| | | | Rem. SP12 | | | | | | | | | | | 40.0 | 9.4 | | |
| 1 3/4 | 1,245 | Fed. 209A | Rem. RP12 | | | | | | | | | | | 39.0 | 10.5 | | |
| 1 7/8 | 1,155 | Fed. 209A | Rem. SP12 | | | | | | | | | | | 36.5 | 9.9 | | |

## 12-Gauge, 3 inch Federal High Power Plastic with 7/16 Fiber Base Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 7/8 | 1,175 | Fed. 209A | Win WAA12R | | | | | | | | | | | 32.5 | 11.2 | | |
| 2 | 1,150 | Win. 209 | Rem. SP12 | | | | | | | | | | | 33.0 | 11.4 | | |

## 12-Gauge, 3 inch Fiocchi Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 3/8 | 1,295 | CCI 209M | Fed. 12S3 | | | | | | | | | 30.0 | 10.0 | 37.0 | 9.0 | | |
| | | Fio. 616 | Fed. 12S3 | | | | | | | | | 31.5 | 9.1 | | | | |
| | | | Fiocchi FTW1 | | | | | | | | | 31.0 | 9.2 | | | | |
| | | | Rem. RXP12 | | | | | | | | | 32.5 | 8.6 | | | | |
| | | | Win. WAA12 (White) | | | | | | | | | 31.5 | 8.9 | | | | |
| | | Win. 209 | Fed. 12S3 | | | | | | | | | 29.5 | 10.6 | 37.5 | 8.8 | | |
| 1 3/8 | 1,350 | CCI 209M | Fed. 12S4 | | | | | | | | | | | 38.0 | 10.4 | | |
| | | Fio. 616 | Fed. 12S4 | | | | | | | | | 32.0 | 10.7 | | | | |
| | | | Rem. SP12 | | | | | | | | | 32.5 | 10.1 | | | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | | | | | 38.5 | 10.1 | | |
| 1 1/2 | 1,315 | CCI 209M | Fed. 12S4 | | | | | | | | | | | 38.0 | 10.4 | | |
| | | Fio. 616 | Fed. 12S4 | | | | | | | | | | | 39.0 | 10.3 | | |
| | | | Rem. SP12 | | | | | | | | | | | 39.0 | 9.7 | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | | | | | 39.0 | 10.6 | | |
| 1 5/8 | 1,280 | Fio. 616 | Fed. 12S4 | | | | | | | | | | | 39.0 | 10.7 | | |
| | | | Rem. SP12 | | | | | | | | | | | 39.5 | 9.7 | | |
| 1 7/8 | 1,155 | Fio. 616 | Rem. RP12 | | | | | | | | | | | 34.5 | 10.7 | | |

## 12-Gauge, 3 inch Rem.-Peters SP Plastic Shells with Separate Plastic Base Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 3/8 | 1,295 | CCI 209M | Fed. 12S3 | | | | | | | | | 29.5 | 10.0 | | | | |
| | | | Rem. RXP12 | | | | | | | | | 30.0 | 9.2 | | | | |
| | | | Win. WAA12 (White) | | | | | | | | | 30.0 | 10.0 | | | | |
| 1 3/8 | 1,350 | CCI 209M | Fed. 12S3 | | | | | | | | | | | 42.0 | 8.4 | | |
| | | | Rem. RXP12 | | | | | | | | | | | 42.5 | 8.0 | | |
| | | | Win. WAA12 (White) | | | | | | | | | | | 42.0 | 8.5 | | |
| 1 1/2 | 1,315 | CCI 209M | Fed. 12S4 | | | | | | | | | | | 39.5 | 9.8 | | |
| | | | Rem. SP12 | | | | | | | | | | | 40.0 | 9.4 | | |
| 1 5/8 | 1,280 | CCI 209M | Fed. 12S4 | | | | | | | | | | | 38.5 | 10.2 | | |
| | | | Rem. SP12 | | | | | | | | | | | 39.0 | 9.8 | | |
| | | | Win. WAA12F114 | | | | | | | | | | | 38.5 | 10.5 | | |
| 1 3/4 | 1,245 | CCI 209M | Rem. RP12 | | | | | | | | | | | 38.5 | 10.7 | | |
| 1 7/8 | 1,155 | CCI 209M | Rem. RP12 | | | | | | | | | | | 34.0 | 10.3 | | |

## 12-Gauge, 3 1/2 inch Fed. Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 7/8 | 1,200 | CCI 209M | Fed. 12SO | | | | | | | | | | | 41.0 | 9.1 | | |
| | | | Rem. R12L | | | | | | | | | | | 40.5 | 9.6 | | |
| | | | Win. WAA12SL | | | | | | | | | | | 41.0 | 8.9 | | |
| | | Win. 209 | Fed. 12SO | | | | | | | | | | | 40.0 | 9.0 | | |
| 1 7/8 | 1,255 | CCI 209M | Fed. 12SO | | | | | | | | | | | 43.0 | 9.8 | | |
| | | | Rem. R12L | | | | | | | | | | | 42.5 | 10.1 | | |
| | | | Win. WAA12SL | | | | | | | | | | | 43.0 | 9.5 | | |
| | | Win. 209 | Fed. 12SO | | | | | | | | | | | 42.5 | 10.1 | | |
| 2 | 1,220 | CCI 209M | Fed. 12SO | | | | | | | | | | | 42.5 | 10.0 | | |
| | | | Rem. R12L | | | | | | | | | | | 42.0 | 10.0 | | |
| | | | Win. WAA12SL | | | | | | | | | | | 42.5 | 9.8 | | |
| | | Win. 209 | Fed. 12SO | | | | | | | | | | | 41.0 | 9.9 | | |
| 2 1/4 | 1,150 | CCI 209M | Fed. 12S4 | | | | | | | | | | | 38.5 | 11.1 | | |
| | | | Rem. SP12 | | | | | | | | | | | 39.5 | 11.2 | | |
| | | | Win. WAA12F114 | | | | | | | | | | | 38.5 | 11.1 | | |
| | | Win. 209 | Fed. 12S4 | | | | | | | | | | | 38.0 | 10.9 | | |

## 12-Gauge, 3 1/2 inch Rem. Plastic SP

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 7/8 | 1,200 | CCI 209M | Fed. 12SO | | | | | | | | | | | 38.0 | 10.1 | | |
| | | | Rem. R12L | | | | | | | | | | | 38.0 | 10.3 | | |
| | | | Win. WAA12SL | | | | | | | | | | | 38.0 | 10.0 | | |
| | | Win. 209 | Rem. R12L | | | | | | | | | | | 37.5 | 10.5 | | |
| 1 7/8 | 1,255 | CCI 209M | Fed. 12SO | | | | | | | | | | | 39.0 | 10.6 | | |
| | | | Rem. R12L | | | | | | | | | | | 39.0 | 10.9 | | |
| | | | Win. WAA12SL | | | | | | | | | | | 39.0 | 10.4 | | |
| | | Win. 209 | Rem. R12L | | | | | | | | | | | 38.5 | 11.0 | | |
| 2 | 1,220 | CCI 209M | Fed. 12SO | | | | | | | | | | | 39.5 | 10.8 | | |
| | | | Rem. R12L | | | | | | | | | | | 39.5 | 11.1 | | |
| | | | Win. WAA12SL | | | | | | | | | | | 39.0 | 10.7 | | |
| | | Win. 209 | Rem. R12L | | | | | | | | | | | 39.0 | 11.2 | | |
| 2 1/4 | 1,150 | CCI 209M | Fed. 12S4 | | | | | | | | | | | 37.0 | 11.1 | | |
| | | | Rem. SP12 | | | | | | | | | | | 38.0 | 11.1 | | |
| | | Win. 209 | Rem. SP12 | | | | | | | | | | | 38.0 | 11.5 | | |

## 12-Gauge, 3 1/2 inch Win. Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 7/8 | 1,200 | CCI 209M | Win. WAA12SL | | | | | | | | | | | 38.0 | 10.1 | | |
| | | Win. 209 | Fed. 12SO | | | | | | | | | | | 38.5 | 10.6 | | |
| | | | Rem. R12L | | | | | | | | | | | 38.5 | 10.3 | | |
| | | | Win. WAA12SL | | | | | | | | | | | 38.5 | 10.0 | | |
| 1 7/8 | 1,255 | CCI 209M | Win. WAA12SL | | | | | | | | | | | 39.5 | 10.5 | | |
| | | Win. 209 | Fed. 12SO | | | | | | | | | | | 40.5 | 10.7 | | |
| | | | Rem. R12L | | | | | | | | | | | 40.0 | 10.7 | | |
| | | | Win. WAA12SL | | | | | | | | | | | 40.0 | 10.8 | | |
| 2 | 1,220 | CCI 209M | Win. WAA12SL | | | | | | | | | | | 39.0 | 11.2 | | |
| | | Win. 209 | Fed. 12SO | | | | | | | | | | | 40.5 | 11.0 | | |
| | | | Rem. R12L | | | | | | | | | | | 39.0 | 10.6 | | |
| | | | Win. WAA12SL | | | | | | | | | | | 40.0 | 11.2 | | |
| 2 1/4 | 1,150 | Win. 209 | Rem. SP12 | | | | | | | | | | | 37.0 | 11.2 | | |

## 16-Gauge, 2 3/4 inch Fed. Plastic Hi Power Shells with Paper Base Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,220 | Fed. 209A | Win. WAA16 | | | | | 19.0 | 9.8 | 21.0 | 8.4 | 21.5 | 8.1 | | | | |
| 1 | 1,275 | Fed. 209A | Win. WAA16 | | | | | | | 23.0 | 8.8 | 23.5 | 8.7 | | | | |
| 1 1/8 | 1,185 | Fed. 209A | Rem. SP16 | | | | | 19.0 | 10.6 | 21.5 | 8.9 | 22.0 | 9.1 | | | | |
| | | | Win. WAA16 | | | | | 18.5 | 10.2 | 21.0 | 8.7 | 22.0 | 9.1 | | | | |
| 1 1/8 | 1,240 | Fed. 209A | Rem. SP16 | | | | | | | 22.5 | 9.6 | 23.5 | 10.1 | | | | |
| | | | Win. WAA16 | | | | | | | 22.0 | 10.2 | 24.0 | 10.2 | | | | |
| 1 1/8 | 1,295 | Fed. 209A | Rem. SP16 | | | | | | | | | 24.5 | 10.3 | 32.0 | 8.6 | | |
| 1 1/4 | 1,260 | Fed. 209A | Rem. SP16 | | | | | | | | | | | 30.5 | 10.2 | | |

## 16-Gauge, 2 3/4 inch Fiocchi Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,165 | Fio. 616 | Win. WAA16 | 15.5 | 10.4 | | | 17.5 | 9.4 | 19.0 | 8.1 | | | | | | |
| 1 | 1,220 | Fio. 616 | Win. WAA16 | | | | | 18.0 | 10.5 | 20.5 | 8.8 | 21.0 | 8.9 | | | | |
| 1 | 1,275 | Fio. 616 | Win. WAA16 | | | | | | | 21.0 | 9.9 | 22.0 | 9.6 | | | | |
| 1 1/8 | 1,185 | Fio. 616 | Rem. SP16 | | | | | | | 20.5 | 9.9 | 21.0 | 10.2 | | | | |
| | | | Win. WAA16 | | | | | | | 19.5 | 10.6 | | | | | | |
| 1 1/8 | 1,240 | Fio. 616 | Rem. SP16 | | | | | | | | | 23.5 | 10.7 | 31.0 | 8.9 | | |
| 1 1/8 | 1,295 | Fio. 616 | Rem. SP16 | | | | | | | | | | | 32.5 | 9.2 | | |

# 16-Gauge, 2 3/4 inch Rem.-Peters SP Plastic Shells with Plastic BaseWad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,165 | Rem. 209P | Win. WAA16 | | | | | 16.5 | 10.2 | 19.0 | 8.6 | | | | | | |
| 1 | 1,220 | Rem. 209P | Win. WAA16 | | | | | | | 20.0 | 9.4 | 21.0 | 9.7 | | | | |
| 1 | 1,275 | Rem. 209P | Win. WAA16 | | | | | | | 21.0 | 10.2 | 22.0 | 9.6 | | | | |
| 1 1/8 | 1,185 | Rem. 209P | Win. WAA16 | | | | | | | 20.0 | 10.3 | 21.0 | 10.6 | | | | |
| 1 1/8 | 1,240 | Rem. 209P | Rem. SP16 | | | | | | | | | | | 27.0 | 9.9 | | |

# 16-Gauge, 2 3/4 inch Win. AA-Type Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,165 | Win. 209 | Win. WAA16 | | | | | | | 19.0 | 9.2 | | | | | | |
| 1 | 1,220 | Win. 209 | Win. WAA16 | | | | | | | 19.5 | 10.5 | 20.0 | 10.2 | | | | |
| 1 | 1,275 | Win. 209 | Rem. SP16 | | | | | | | | | | | 29.0 | 9.3 | | |
| 1 1/8 | 1,185 | Win. 209 | Rem. SP16 | | | | | | | | | | | 27.0 | 10.0 | | |

# 20-Gauge, 2 3/4 inch Fed. Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,155 | CCI 109 | Fed. 20S1 | | | | | 14.5 | 8.4 | | | | | | | | |
| | | | Lage Uniwad | | | | | 15.5 | 8.7 | 17.0 | 8.3 | | | | | | |
| | | | Rem. RXP20 | | | | | | | 16.0 | 8.6 | | | | | | |
| | | | Win. WAA20 | | | | | 14.5 | 8.0 | | | | | | | | |
| | | CCI 209M | Fed. 20S1 | | | | | 14.5 | 9.1 | 16.0 | 8.7 | | | | | | |
| | | Fed. 209 | Hornady Versalite | | | | | 15.5 | 10.0 | | | | | | | | |
| | | | Lage Uniwad | | | | | 16.0 | 10.1 | | | | | | | | |
| | | | Win. WAA20 | | | | | 14.5 | 9.7 | | | | | | | | |
| | | | Windjammer | | | | | 15.0 | 10.0 | 16.5 | 8.6 | | | | | | |
| 7/8 | 1,200 | CCI 109 | Fed. 20S1 | | | | | 15.5 | 9.4 | 17.0 | 8.5 | 17.0 | 9.3 | | | | |
| | | | Lage Uniwad | | | | | 16.0 | 10.0 | 18.0 | 8.8 | | | | | | |
| | | | Rem. RXP20 | | | | | 16.0 | 9.6 | 17.0 | 9.2 | 18.0 | 8.8 | | | | |
| | | | Win. WAA20 | | | | | 15.5 | 9.1 | 17.0 | 8.5 | 17.0 | 9.1 | | | | |
| | | CCI 209M | Fed. 20S1 | | | | | 16.5 | 9.3 | 17.0 | 9.1 | 17.5 | 7.6 | | | | |
| | | Fed. 209 | Fed. 20S1 | | | | | 16.5 | 10.6 | | | | | | | | |
| | | | Hornady Versalite | | | | | 16.0 | 10.5 | | | | | | | | |
| | | | Lage Uniwad | | | | | 16.5 | 11.0 | | | | | | | | |
| | | | Windjammer | | | | | 16.0 | 10.9 | 17.0 | 10.6 | 18.5 | 10.2 | | | | |
| | | Fed. 209A | PC 20 | | | | | 16.0 | 11.2 | 18.0 | 9.8 | 18.0 | 9.2 | | | | |
| 1 | 1,165 | Fed. 209 | Rem. RXP20 | | | | | | | | | 17.0 | 11.3 | | | | |
| | | | SP20 | | | | | | | 16.0 | 10.8 | 17.0 | 9.6 | | | | |
| | | | Win. WAA20F1 | | | | | | | 15.5 | 11.3 | 16.5 | 11.1 | | | | |
| 1 | 1,220 | CCI 209M | Fed. 20S1 | | | | | | | | | 18.5 | 9.8 | | | | |
| | | Fed. 209 | Rem. SP20 | | | | | | | | | | | 24.0 | 10.2 | | |
| | | | Win. WAA20F1 | | | | | | | | | | | 24.0 | 10.1 | | |
| 1 1/8 | 1,175 | Fed. 209 | Rem. SP20 | | | | | | | | | | | 23.0 | 10.9 | | |

# 20-Gauge, 2 3/4 inch Fiocchi Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,155 | CCI 209M | Fed. 20S1 | | | | | 14.5 | 10.5 | 16.0 | 9.2 | | | | | | |
| | | Fed. 209 | Fed. 20S1 | | | | | 14.5 | 11.1 | 15.5 | 10.0 | | | | | | |
| | | Fio. 616 | Fed. 20S1 | | | | | 15.0 | 9.1 | 17.0 | 9.1 | | | | | | |
| | | | Hornady Versalite | | | | | 15.5 | 9.7 | 18.0 | 8.3 | | | | | | |

# 20-Gauge, 2 3/4 inch Fiocchi Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cont. from Prev. Page: Velocity - 1,155 • Shot Wt. - 7/8 | | | | | | | | | | | | | | | | | |
| | | | Lage Uniwad | | | | | 15.5 | 9.5 | 17.5 | 8.6 | | | | | | |
| | | Rem. 209 | Fed. 20S1 | | | | | 14.5 | 10.0 | 16.0 | 9.4 | | | | | | |
| | | Win. 209 | Fed. 20S1 | | | | | 14.5 | 10.6 | 16.5 | 9.0 | | | | | | |
| 7/8 | 1,200 | CCI 209M | Fed. 20S1 | | | | | 15.5 | 10.7 | 17.0 | 10.0 | 17.0 | 9.9 | | | | |
| | | Fed. 209 | Fed. 20S1 | | | | | 15.5 | 11.1 | 17.0 | 10.8 | 17.5 | 10.2 | | | | |
| | | Fio. 615 | Fed. 20S1 | | | | | 16.0 | 10.9 | 18.0 | 9.7 | 18.0 | 9.2 | | | | |
| | | | Hornady Versalite | | | | | 16.0 | 10.0 | | | 19.0 | 8.3 | | | | |
| | | | Lage Uniwad | | | | | 17.5 | 8.2 | 19.0 | 8.0 | | | | | | |
| | | | Rem. RXP20 | | | | | 16.5 | 10.3 | | | 19.0 | 8.5 | | | | |
| | | | Win. WAA20 | | | | | 16.0 | 10.8 | 17.5 | 9.6 | 18.5 | 8.7 | | | | |
| | | Fio. 616 | Fed. 20S1 | | | | | 15.5 | 10.6 | 17.5 | 10.0 | 18.0 | 9.2 | | | | |
| | | Rem. 209 | Fed. 20S1 | | | | | 15.5 | 10.8 | | | 16.5 | 9.9 | | | | |
| | | Win. 209 | Fed. 20S1 | | | | | 16.0 | 10.4 | 16.0 | 10.1 | 18.0 | 9.9 | | | | |
| 1 | 1,220 | CCI 209M | Rem. SP20 | | | | | | | | | | | 24.0 | 10.7 | | |
| | | Fed. 209 | Rem. SP20 | | | | | | | | | | | 23.0 | 10.3 | | |
| | | Fio. 615 | Rem. SP20 | | | | | | | | | | | 27.5 | 9.2 | | |
| | | Fio. 616 | Rem. SP20 | | | | | | | | | | | 24.5 | 10.3 | | |
| | | Rem. 209 | Rem. SP20 | | | | | | | | | | | 22.5 | 10.6 | | |
| 1 | 1,275 | Fed. 209 | Rem. SP20 | | | | | | | | | | | 25.0 | 10.3 | | |
| | | Fio. 616 | Rem. SP20 | | | | | | | | | | | 26.0 | 10.8 | | |
| | | Win. 209 | Rem. SP20 | | | | | | | | | | | 26.0 | 10.6 | | |
| 1 1/8 | 1,175 | Fed. 209 | Rem. SP20 | | | | | | | | | | | 23.5 | 10.7 | | |
| | | Fio. 616 | Rem. SP20 | | | | | | | | | | | 23.5 | 10.0 | | |
| | | Win. 209 | Rem. SP20 | | | | | | | | | | | 23.5 | 11.4 | | |

# 20-Gauge, 2 3/4 inch Rem. Premier Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,155 | CCI 209M | Rem. RXP20 | | | | | | | 15.5 | 11.0 | 16.5 | 10.5 | | | | |
| | | Fio. 616 | Rem. RXP20 | | | | | | | 16.0 | 10.7 | 16.5 | 10.1 | | | | |
| | | Rem. 209P | Rem. RXP20 | | | | | | | 15.5 | 10.0 | | | | | | |
| | | | Claybuster 1078-20 | | | | | | | 15.5 | 9.5 | 16.0 | 9.8 | | | | |
| | | | Duster - Orange | | | | | | | 16.5 | 7.7 | | | | | | |
| | | | Fed. 20S1 | | | | | | | 15.5 | 10.0 | 16.0 | 10.0 | | | | |
| | | | Win. WAA20F1 | | | | | | | | | 16.0 | 9.5 | | | | |
| | | Win. 209 | Rem. RXP20 | | | | | | | 15.5 | 10.3 | 16.5 | 10.2 | | | | |
| 7/8 | 1,200 | CCI 209 | Rem. RXP20 | | | | | | | 16.5 | 9.9 | 17.5 | 9.4 | | | | |
| | | CCI 209M | Rem. RXP20 | | | | | | | 16.0 | 11.3 | 17.0 | 10.8 | | | | |
| | | Fio. 616 | Rem. RXP20 | | | | | | | 16.5 | 11.2 | 17.0 | 10.7 | | | | |
| | | Rem. 209P | Claybuster 1078-20 | | | | | | | 16.5 | 10.6 | 17.5 | 9.8 | | | | |
| | | | Duster - Orange | | | | | | | 17.5 | 8.1 | | | | | | |
| | | | Fed. 20S1 | | | | | | | 16.5 | 10.8 | 17.0 | 10.5 | | | | |
| | | | Hornady Versalite | | | | | | | 16.5 | 10.2 | 17.5 | 10.4 | | | | |
| | | | Lage Uniwad | | | | | | | 16.5 | 10.4 | 17.5 | 10.3 | | | | |
| | | | Rem. RXP20 | | | | | | | 16.5 | 10.7 | 17.0 | 10.6 | | | | |
| | | | Win. WAA20F1 | | | | | | | 16.0 | 11.0 | 17.5 | 10.4 | | | | |
| | | | Win. WAA20 | | | | | | | 16.5 | 10.9 | 17.0 | 10.7 | | | | |
| | | | Windjammer | | | | | | | 16.0 | 10.4 | 17.0 | 10.1 | | | | |
| | | Win. 209 | Rem. RXP20 | | | | | | | 16.5 | 11.3 | 17.0 | 10.6 | | | | |
| 1 | 1,075 | Rem. 209P | Win. WAA20F1 | | | | | | | | | 14.5 | 11.0 | | | | |
| 1 | 1,155 | CCI 209 | Rem. SP20 | | | | | | | | | | | 22.0 | 9.5 | | |
| | | CCI 209M | Rem. SP20 | | | | | | | | | | | 21.5 | 10.5 | | |
| | | Fio. 616 | Rem. SP20 | | | | | | | | | | | 22.5 | 9.8 | | |
| | | Rem. 209P | Rem. SP20 | | | | | | | | | | | 21.5 | 9.0 | | |
| | | | Win. WAA20F1 | | | | | | | | | 17.5 | 11.5 | 21.5 | 9.0 | | |
| | | Win. 209 | Rem. SP20 | | | | | | | | | | | 21.5 | 10.6 | | |
| 1 | 1,220 | CCI 209 | Rem. SP20 | | | | | | | | | | | 23.0 | 10.3 | | |
| | | CCI 209M | Rem. SP20 | | | | | | | | | | | 22.5 | 10.9 | | |
| | | Fio. 616 | Rem. SP20 | | | | | | | | | | | 23.5 | 11.0 | | |
| | | Rem. 209P | Rem. SP20 | | | | | | | | | | | 24.0 | 11.1 | | |
| | | | Win. WAA20F1 | | | | | | | | | | | 23.5 | 10.9 | | |
| | | Win. 209 | Rem. SP20 | | | | | | | | | | | 22.0 | 11.1 | | |

## 20-Gauge, 2 3/4 inch Rem. SP with Plastic Base Wad

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,200 | Rem. 209 | Rem. RXP20 | | | | | | | 16.5 | 9.1 | | | | | | |
| | | | Win. WAA20 | | | | | | | 16.5 | 9.8 | | | | | | |
| 1 | 1,165 | Rem. 209 | Rem. SP20 | | | | | | | | | 17.5 | 11.3 | | | | |
| | | | Win. WAA20F1 | | | | | | | | | 17.5 | 10.7 | | | | |
| 1 | 1,220 | Rem. 209 | Rem. SP20 | | | | | | | | | | | 23.0 | 10.3 | | |
| | | | Win. WAA20F1 | | | | | | | | | | | 24.0 | 10.1 | | |

## 20-Gauge, 2 3/4 inch Rem.-Peters Unibody Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,200 | CCI 209M | Rem. RXP20 | | | | | | | 16.5 | 10.9 | 17.5 | 11.3 | | | | |
| | | Fed. 209 | Rem. RXP20 | | | | | | | 16.0 | 11.5 | 16.5 | 10.7 | | | | |
| | | Rem. 209 | Hornady Versalite | | | | | | | | | 16.5 | 10.9 | | | | |
| | | | Rem. RXP20 | | | | | | | 16.5 | 10.8 | 16.5 | 10.2 | | | | |
| | | | Win. WAA20 | | | | | | | 16.5 | 11.2 | | | | | | |
| | | Win. 209 | Rem. RXP20 | | | | | | | | | 17.5 | 10.9 | | | | |
| 1 | 1,165 | CCI 209M | Rem. SP20 | | | | | | | | | | | 22.0 | 10.5 | | |
| | | Fed. 209 | Rem. SP20 | | | | | | | | | | | 21.5 | 10.5 | | |
| | | Rem. 209 | Rem. SP20 | | | | | | | | | | | 21.0 | 11.5 | | |
| | | | Win. WAA20F1 | | | | | | | | | | | 21.5 | 11.1 | | |
| | | Win. 209 | Rem. SP20 | | | | | | | | | | | 22.0 | 11.3 | | |

## 20-Gauge, 2 3/4 inch Win.-Western Plastic AA-type Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,050 | Win. 209 | Win. WAA20 | | | | | 11.2 | 11.0 | | | | | | | | |
| 7/8 | 1,100 | Win. 209 | Claybuster 1078-20 | | | | | 13.0 | 11.2 | | | | | | | | |
| | | | Win. WAA20 | | | | | | | 13.8 | 11.2 | | | | | | |
| | | | Win. WAA20F1 | | | | | 12.5 | 11.3 | | | | | | | | |
| 7/8 | 1,155 | CCI 209M | Win. WAA20 | | | | | | | 15.0 | 10.2 | | | | | | |
| | | Win. 209 | Claybuster 1078-20 | | | | | | | 15.0 | 10.2 | 16.0 | 10.5 | | | | |
| | | | PC20 | | | | | 13.5 | 11.2 | | | | | | | | |
| | | | Rem. RXP20 | | | | | | | 15.0 | 8.7 | | | | | | |
| | | | Win. WAA20F1 | | | | | | | 15.0 | 11.0 | 16.0 | 11.0 | | | | |
| 7/8 | 1,200 | Win. 209 | Claybuster 1078-20 | | | | | | | 16.0 | 11.2 | 16.5 | 11.0 | | | | |
| | | | PC20 | | | | | | | 16.0 | 11.2 | 16.5 | 11.3 | | | | |
| | | | Rem. RXP20 | | | | | | | 16.0 | 9.0 | 16.5 | 9.0 | | | | |
| | | | Win. WAA20F1 | | | | | | | 15.5 | 11.2 | | | | | | |
| 1 | 1,165 | Win. 209 | Rem. RXP20 | | | | | | | | | 16.5 | 9.6 | | | | |
| | | | Rem. SP20 | | | | | | | | | 16.5 | 10.0 | | | | |
| 1 | 1,220 | Win. 209 | Rem. RXP20 | | | | | | | | | | | 23.0 | 11.3 | | |
| | | | Rem. SP20 | | | | | | | | | | | 23.5 | 11.4 | | |
| | | | Win. WAA20F1 | | | | | | | | | | | 23.0 | 11.5 | | |

## 20-Gauge, 2 3/4 inch Win.-Western Plastic Xpert Ranger Shells (Polyformed Shell)

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/8 | 1,155 | Win. 209 | Fed. 20S1 | | | | | | | 14.5 | 9.7 | | | | | | |
| | | | Win. WAA20 | | | | | | | 14.5 | 9.8 | | | | | | |
| 7/8 | 1,200 | Win. 209 | Fed. 20S1 | | | | | | | 15.5 | 10.8 | | | | | | |
| | | | Rem. RXP20 | | | | | | | 15.5 | 9.7 | | | | | | |
| | | | Win. WAA20 | | | | | | | 15.5 | 10.7 | | | | | | |
| 1 | 1,165 | Win. 209 | Rem. RXP20 | | | | | | | 16.0 | 11.1 | | | | | | |

## 20-Gauge, 3 inch Fed. Plastic Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,255 | Fed. 209 | Rem. RXP20 | | | | | | | | | | | 27.0 | 9.2 | | |
| | | | Win. WAA20 | | | | | | | | | | | 26.5 | 9.4 | | |
| 1 | 1,310 | Fed. 209 | Fed. 20S1 | | | | | | | | | | | 28.0 | 10.3 | | |
| | | | Rem. RXP20 | | | | | | | | | | | 28.0 | 10.2 | | |
| | | | Win. WAA20 | | | | | | | | | | | 28.5 | 10.6 | | |
| 1 1/8 | 1,230 | Fed. 209 | Rem. SP20 | | | | | | | | | | | 26.5 | 10.3 | | |
| | | | Win. WAA20F1 | | | | | | | | | | | 26.0 | 10.1 | | |
| 1 1/4 | 1,185 | Fed. 209 | Rem. SP20 | | | | | | | | | | | 25.5 | 10.6 | | |
| | | | Win. WAA20F1 | | | | | | | | | | | 25.5 | 10.4 | | |

## 28-Gauge, 2 3/4 inch Fed. Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/4 | 1,200 | CCI 109 | Rem. SP28 | | | | | 13.0 | 10.0 | 13.5 | 9.4 | 14.5 | 10.0 | 18.5 | 9.8 | | |
| | | | Win. WAA28 | | | | | | | 14.0 | 10.4 | 15.0 | 10.5 | | | | |
| | | Fed. 209 | Fed. 28S1A | | | | | | | 13.5 | 11.6 | 14.0 | 11.7 | 17.5 | 9.6 | | |
| | | | Rem. SP28 | | | | | 12.5 | 11.8 | 13.0 | 11.2 | 13.0 | 10.1 | 18.0 | 9.9 | | |
| | | | Win. WAA28 | | | | | | | 13.5 | 10.5 | 14.0 | 10.9 | 17.5 | 8.7 | | |
| 3/4 | 1,295 | Fed. 209 | Rem. SP28 | | | | | | | | | | | 20.0 | 10.9 | | |

## 28-Gauge, 2 3/4 inch Rem.-Peters Plastic Target Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/4 | 1,200 | CCI 109 | Fed. 28S1A | | | | | 13.0 | 11.8 | 14.0 | 10.9 | 14.5 | 10.7 | 18.5 | 10.1 | | |
| | | | Rem. SP28 | | | | | 12.0 | 10.2 | 13.0 | 9.1 | 14.0 | 8.9 | 18.0 | 7.5 | | |
| | | | Win. WAA28 | | | | | 12.0 | 10.4 | 13.0 | 9.1 | 14.0 | 8.3 | 18.0 | 7.3 | | |
| | | Rem. 209P | Fed. 28S1A | | | | | | | 13.5 | 11.3 | 14.5 | 11.2 | 18.0 | 9.2 | | |
| | | | Rem. SP28 | | | | | 12.0 | 10.5 | 13.0 | 9.1 | 14.0 | 8.7 | 18.0 | 7.6 | | |
| | | | Win. WAA28 | | | | | 12.0 | 10.3 | 13.0 | 8.9 | 14.0 | 8.8 | 18.0 | 7.7 | | |
| 3/4 | 1,295 | Rem. 209P | Rem. SP28 | | | | | | | 15.0 | 10.6 | 16.5 | 10.3 | 21.0 | 9.7 | | |

## 28-Gauge, 2 3/4 inch Remington Premier STS

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/4 | 1,200 | Rem. 209P | Duster Red | | | | | | | 14.0 | 9.6 | 14.8 | 9.6 | | | | |
| | | | PC Blue | | | | | | | 14.0 | 11.2 | 14.5 | 10.8 | 18.5 | 9.6 | | |

## 28-Gauge, 2 3/4 inch Win.-Western Plastic AA-Type Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/4 | 1,200 | CCI 109 | Win. WAA28 | | | | | | | 13.0 | 8.4 | 14.0 | 7.9 | | | | |
| | | Win. 209 | Win. WAA28 | | | | | 12.5 | 11.9 | 13.0 | 9.4 | 14.0 | 8.4 | | | | |

## 28-Gauge, 2 3/4 inch Win.-Western Plastic AA-Type "HS" Shells

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/4 | 1,200 | Win 209 | Win. WAA28HS | | | | | | | 13.1 | 11.3 | | | | | | |
| | | Win. 209 | Win. WAA28HS | | | | | | | | | 14.0 | 10.9 | | | | |

## 410 Bore, 2 1/2 inch Fed. Plastic Shell

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | 1,200 | Fed. 209 | Fed. 410SC | | | | | | | | | | | | | 13.5 | 11.9 |
| | | | Rem. SP410 | | | | | | | | | | | | | 13.0 | 11.5 |
| | | | Win. WAA41 | | | | | | | | | | | | | 13.0 | 11.3 |
| | | Fed. 410 | Fed. 410SC | | | | | | | | | | | | | 13.5 | 12.0 |

## 410 Bore, 2 1/2 inch Rem.-Peters Plastic Shell

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | 1,200 | CCI 209 | Fed. 410SC | | | | | | | | | | | | | 14.0 | 10.6 |
| | | | Rem. SP410 | | | | | | | | | | | | | 14.5 | 10.5 |
| | | | Win. WAA41 | | | | | | | | | | | | | 14.5 | 10.3 |
| | | CCI 209M | Rem. SP410 | | | | | | | | | | | | | 13.5 | 11.0 |
| | | Rem. 97* | Fed. 410SC | | | | | | | | | | | | | 13.5 | 11.4 |
| | | | Rem. SP410 | | | | | | | | | | | | | 13.0 | 11.5 |
| | | | Win. WAA41 | | | | | | | | | | | | | 14.0 | 11.5 |

## 410 Bore, 2 1/2 inch Win.-Western Plastic AA-Type Shell

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | 1,200 | CCI 209 | Fed. 410SC | | | | | | | | | | | | | 13.0 | 12.1 |
| | | | Rem. SP410 | | | | | | | | | | | | | 13.5 | 12.0 |
| | | Win. 209 | Win. WAA41 | | | | | | | | | | | | | 13.0 | 11.7 |

## 410 Bore, 3 inch Rem.-Peters Plastic Shell

| Shot Wt. (ounces) | Velocity | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 | Unique Grains | Unique psi x1000 | Herco Grains | Herco psi x1000 | Blue Dot Grains | Blue Dot psi x1000 | 2400 Grains | 2400 psi x1000 vv |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2/3 | 1,135 | CCI 209M | Rem. SP410 | | | | | | | | | | | | | 14.5 | 12.2 |
| | | Fed. 410 | Rem. SP410 | | | | | | | | | | | | | 14.0 | 12.7 |
| | | Rem. 97* | Fed. 410SC | | | | | | | | | | | | | 14.5 | 12.6 |
| | | | Rem. SP410 | | | | | | | | | | | | | 14.5 | 13.0 |
| | | | Win. WAA41 | | | | | | | | | | | | | 14.5 | 12.3 |

# 410™ RELOADING DATA NEW!

**Alliant Powder's new 410 is the only flake powder that is specifically designed for the exacting needs of .410 skeet and field loads. It's the cleanest burning .410 powder available. New 410 is more efficient, with lower powder charge weights, giving it optimum loading characteristics. The superior ballistic performance of 410 creates perfect patterns. Consistent performance in any weather, shot after shot, lot after lot, makes the new 410 your reloading powder of choice.**

| Shell Type | Shot Weight (ounces) | Velocity (fps) | Primer | Wad | Powder | Charge Wt. (GRS) | Pressure PSI | |
|---|---|---|---|---|---|---|---|---|
| **410 Bore, 2 1/2 inch Remington Premier Shell** | 1/2 oz | 1,200 | Rem 209STS | SP 410 | 410 | 12 | 9,500 | |
| | 1/2 oz | 1,200 | CCI 209M | SP 410 | 410 | 12.2 | 9,800 | |
| | 1/2 oz | 1,200 | Rem 209STS | Fed. 410 SC | 410 | 12.2 | 10,700 | |
| | 1/2 oz | 1,200 | Rem 209STS | WAA41 | 410 | 12.3 | 8,800 | |
| | 1/2 oz | 1,200 | Rem 209STS | CB 1050-41 | 410 | 12.3 | 8,700 | |
| | 1/2 oz | 1,230 | Rem 209STS | Duster 4150 | 410 | 12.8 | 9,900 | |
| | 1/2 oz | 1,230 | Rem 209STS | SP 410 | 410 | 12.7 | 9,700 | |
| **410 Bore, 2 1/2 inch Win. Western Plastic AA Type Shell** | 1/2 oz | 1,200 | CCI 209M | WAA41 | 410 | 11.5 | 11,100 | |
| | 1/2 oz | 1,200 | Win 209 | CB1050-41 | 410 | 11.5 | 10,100 | |
| | 1/2 oz | 1,200 | Win 209 | Duster 4150 | 410 | 11.4 | 11,100 | |
| | 1/2 oz | 1,200 | Win 209 | Fed. 410SC | 410 | 11 | 11,600 | |
| | 1/2 oz | 1,200 | Win 209 | Rem. SP 410 | 410 | 11.5 | 10,800 | |
| | 1/2 oz | 1,230 | CCI 209M | WAA41 | 410 | 11.9 | 11,800 | |
| | 1/2 oz | 1,230 | Win 209 | CB1050-41 | 410 | 11.9 | 10,900 | |
| **410 Bore, 2 1/2 inch Federal Plastic Shell** | 1/2 oz | 1,200 | CCI 209M | Fed. 410SC | 410 | 11.5 | 10,600 | |
| | 1/2 oz | 1,200 | Fed 209A | WAA41 | 410 | 11.5 | 10,500 | 1/16 in. spacer req. |
| | 1/2 oz | 1,200 | Fed 209A | SP410 | 410 | 11.5 | 10,700 | 1/16 in. spacer req. |
| | 1/2 oz | 1,200 | Fed 209A | Duster 4150 | 410 | 11.5 | 10,000 | |
| | 1/2 oz | 1,200 | Fed 209A | CB 1050-41 | 410 | 11.5 | 10,500 | 1/16 in. spacer req. |
| | 1/2 oz | 1,200 | Fed 209A | Fed. 410SC | 410 | 11.5 | 10,500 | |
| | 1/2 oz | 1,230 | Fed 209A | Duster 4150 | 410 | 11.9 | 11,800 | |
| | 1/2 oz | 1,230 | Fed 209A | Fed. 410SC | 410 | 11.9 | 12,000 | |
| | 1/2 oz | 1,230 | Fed209A | Rem. SP410 | 410 | 11.8 | 11,800 | 1/16 in. spacer req. |
| | 1/2 oz | 1,230 | Fed 209A | WAA41 | 410 | 11.8 | 11,500 | 1/16 in. spacer req. |
| | 1/2 oz | 1,230 | Fed 209A | CB 1050-41 | 410 | 11.8 | 11,400 | |

# PROMO™ RELOADING DATA

**PROMO™ is Alliant's budget priced 12 gauge target shotshell powder. Available in 8 pound container only, it provides economical loads that are reliable and consistent, shot after shot.**

**Note - To determine the proper bushing size for PROMO™ shotshell powder, be sure to use the following procedure:**

- **Select a bushing 2 sizes smaller than the one recommended for the same number of grains of Red Dot® from the manufacturers' bushing chart, then...**
- **Place this bushing in your reloading machine and weigh several charges on your powder scales, then...**
- **Compare the weighed charge to the recommended charge weight.**
- **Adjust the bushing size if necessary to obtain the desired charge weight.**
- **Confirm your bushing size with each new powder lot.**
- **We recommend this same procedure for confirming the correct bushing size for each new lot of PROMO.™**
- **With all powders, you should routinely verify your powder charge using an accurate powder scale.**

## All data are for 12 gauge, 2 3/4 inch shells

| Shot Weight | Shell | Velocity (FPS) | Primer | Wad | Promo Grains |
|---|---|---|---|---|---|
| 1 | Federal Gold Medal | 1,200 | Fed. 209A | Fed12S0 | 18 |
| 1 | Federal Gold Medal | 1,200 | Fed. 209A | WAA12 SL | 18 |
| 1 | Federal Gold Medal | 1,200 | Fed. 209A | Claybuster 1100-12 | 18 |
| 1 | Federal Gold Medal | 1,255 | Fed. 209A | Fed12S0 | 19 |
| 1 | Federal Gold Medal | 1,255 | Fed. 209A | WAA12 SL | 18.5 |
| 1 | Federal Gold Medal | 1,255 | Fed. 209A | Claybuster 1100-12 | 18.5 |
| 1 | Remington STS, Nitro 27 & Premier | 1,200 | Rem. 209P | Rem. TGT12 | 18 |
| 1 | Remington STS, Nitro 27 & Premier | 1,200 | Rem. 209P | Claybuster 1100-12 | 18 |
| 1 | Remington STS, Nitro 27 & Premier | 1,200 | Rem. 209P | Purple PC | 18.5 |
| 1 | Remington STS, Nitro 27 & Premier | 1,255 | Rem. 209P | Rem. TGT12 | 19 |
| 1 | Remington STS, Nitro 27 & Premier | 1,255 | Rem. 209P | Claybuster 1100-12 | 19.5 |
| 1 | Remington STS, Nitro 27 & Premier | 1,255 | Rem. 209P | Purple PC | 19.5 |
| 1 | Winchester AA | 1,200 | Win. 209 | WAA12 SL | 18 |
| 1 | Winchester AA | 1,200 | Win. 209 | Claybuster 1100-12 | 18 |
| 1 | Winchester AA | 1,200 | Win. 209 | Purple PC | 18 |
| 1 | Winchester AA | 1,255 | Win. 209 | WAA12 SL | 19 |
| 1 | Winchester AA | 1,255 | Win. 209 | WAA12 SL | 19 |
| 1 | Winchester AA | 1,255 | Win. 209 | Claybuster 1100-12 | 19 |
| 1 | Winchester AA | 1,255 | Win. 209 | Purple PC | 19 |
| 1 1/8 | Federal Gold Medal | 1,145 | Fed. 209A | Fed. 12S3 | 18 |
| 1 1/8 | Federal Gold Medal | 1,145 | Fed. 209A | WAA12 (white) | 17.5 |
| 1 1/8 | Federal Gold Medal | 1,145 | Fed. 209A | Claybuster 3118-12 | 18 |
| 1 1/8 | Federal Gold Medal | 1,200 | Fed. 209A | Fed. 12S3 | 19.5 |
| 1 1/8 | Federal Gold Medal | 1,200 | Fed. 209A | WAA12 (white) | 19 |
| 1 1/8 | Federal Gold Medal | 1,200 | Fed. 209A | Claybuster 3118-12 | 19 |
| 1 1/8 | Remington STS, Nitro 27 & Premier | 1,145 | Rem. 209P | Figure 8 | 18 |
| 1 1/8 | Remington STS, Nitro 27 & Premier | 1,145 | Rem. 209P | Windjammer | 17.5 |
| 1 1/8 | Remington STS, Nitro 27 & Premier | 1,145 | Rem. 209P | Claybuster 3118-12 | 17.5 |
| 1 1/8 | Remington STS, Nitro 27 & Premier | 1,145 | Rem. 209P | Red PC | 17.5 |
| 1 1/8 | Remington STS, Nitro 27 & Premier | 1,200 | Rem. 209P | Figure 8 | 19 |
| 1 1/8 | Remington STS, Nitro 27 & Premier | 1,200 | Rem. 209P | Windjammer | 18.5 |
| 1 1/8 | Remington STS, Nitro 27 & Premier | 1,200 | Rem. 209P | Claybuster 3118-12 | 19 |
| 1 1/8 | Winchester AA | 1,145 | Win. 209 | WAA12 (white) | 17 |
| 1 1/8 | Winchester AA | 1,145 | Win. 209 | Figure 8 | 17.5 |
| 1 1/8 | Winchester AA | 1,145 | Win. 209 | Windjammer | 17.5 |
| 1 1/8 | Winchester AA | 1,145 | Win. 209 | Claybuster 3118-12 | 17 |
| 1 1/8 | Winchester AA | 1,145 | Win. 209 | Red PC | 17.5 |
| 1 1/8 | Winchester AA | 1,200 | Win. 209 | WAA12 (white) | 18 |
| 1 1/8 | Winchester AA | 1,200 | Win. 209 | Figure 8 | 18.5 |
| 1 1/8 | Winchester AA | 1,200 | Win. 209 | Windjammer | 18.5 |
| 1 1/8 | Winchester AA | 1,200 | Win. 209 | Claybuster 3118-12 | 18 |
| 1 1/8 | Winchester AA | 1,200 | Win. 209 | Red PC | 18.5 |

# e³ RELOADING DATA NEW!

**Great patterns, superior consistency, low charge weight efficiency. To top it off, e³ is the cleanest double-base powder available, and far less affected by temperature changes than single-base powders. That means better performance from your reloads and more broken targets. Give it a shot and you'll see the difference. Energy, Efficiency, Excellence...that's e³.**

## All data are for 12-gauge, 2 3/4 inch shells

| Shell Type | Shot Weight (ounces) | Velocity (fps) | Primer | Wad | Powder | Charge Wt. (GRS) | Pressure PSI |
|---|---|---|---|---|---|---|---|
| **Fed. Gold Medal Plastic Target Shell** | 7/8 oz | 1,200 | Fed 209A | Fed. 12SO | e³ | 16.5 | 6,905 |
| | 7/8 oz | 1,250 | Fed 209A | Rem. TGT 12 | e³ | 17.0 | 7,095 |
| | 7/8 oz | 1,250 | Fed 209A | Fed. 12SO | e³ | 17.5 | 8,095 |
| | 7/8 oz | 1,300 | Fed 209A | Rem. TGT 12 | e³ | 18.0 | 7,925 |
| | 7/8 oz | 1,300 | Fed 209A | Fed. 12SO | e³ | 18.5 | 8,855 |
| | 1 oz | 1,200 | Fed 209A | Duster - Green | e³ | 16.5 | 8,310 |
| | 1 oz | 1,200 | Fed 209A | Rem. TGT 12 | e³ | 17.0 | 8,000 |
| | 1 oz | 1,200 | Fed 209A | Fed. 12SO | e³ | 17.5 | 9,040 |
| | 1 oz | 1,255 | Fed 209A | Rem. TGT 12 | e³ | 18.0 | 8,840 |
| | 1 oz | 1,255 | Fed 209A | Duster - Green | e³ | 18.0 | 9,710 |
| | 1 oz | 1,255 | Fed 209A | Fed. 12SO | e³ | 18.5 | 9,340 |
| | 1 oz | 1,290 | Fed 209A | Duster - Green | e³ | 18.5 | 10,035 |
| | 1 oz | 1,290 | Fed 209A | Rem. TGT 12 | e³ | 19.0 | 9,660 |
| | 1 oz | 1,300 | Fed 209A | Fed. 12SO | e³ | 19.5 | 10,070 |
| | 1 1/8 oz | 1,090 | Fed 209A | Claybuster 3118-12AR | e³ | 15.5 | 8,210 |
| | 1 1/8 oz | 1,090 | Fed 209A | Claybuster 4118 | e³ | 15.5 | 7,860 |
| | 1 1/8 oz | 1,090 | Fed 209A | Rem. Fig. 8 | e³ | 15.5 | 7,930 |
| | 1 1/8 oz | 1,090 | Fed 209A | Win. WAA12 (white) | e³ | 15.5 | 8,290 |
| | 1 1/8 oz | 1,090 | Fed 209A | Win. WAA12SL | e³ | 15.5 | 8,485 |
| | 1 1/8 oz | 1,090 | Fed 209A | Fed. 12S3 | e³ | 15.5 | 8,580 |
| | 1 1/8 oz | 1,090 | Fed 209A | Duster - Blue | e³ | 15.5 | 8,655 |
| | 1 1/8 oz | 1,145 | Fed 209A | Claybuster 4118 | e³ | 16.5 | 8,365 |
| | 1 1/8 oz | 1,145 | Fed209A | Claybuster 3118-12AR | e³ | 16.5 | 8,960 |
| | 1 1/8 oz | 1,145 | Fed 209A | Win. WAA12 (white) | e³ | 16.5 | 8,980 |
| | 1 1/8 oz | 1,145 | Fed 209A | Win. WAA12SL | e³ | 16.5 | 9.215 |
| | 1 1/8 oz | 1,145 | Fed 209A | Duster - Blue | e³ | 16.5 | 9,520 |
| | 1 1/8 oz | 1,145 | Fed 209A | Rem. Fig. 8 | e³ | 17.0 | 8,875 |
| | 1 1/8 oz | 1,145 | Fed 209A | Fed. 12S3 | e³ | 17.0 | 9,260 |
| | 1 1/8 oz | 1,200 | Fed 209A | Claybuster 3118-12AR | e³ | 17.8 | 9,990 |
| | 1 1/8 oz | 1,200 | Fed 209A | Claybuster 4118 | e³ | 18.0 | 9,525 |
| | 1 1/8 oz | 1,200 | Fed 209A | Rem. Fig. 8 | e³ | 18.0 | 9,900 |
| | 1 1/8 oz | 1,200 | Fed 209A | Win. WAA12 (white) | e³ | 18.0 | 10,470 |
| | 1 1/8 oz | 1,200 | Fed 209A | Duster - Blue | e³ | 18.0 | 10,550 |
| | 1 1/8 oz | 1,200 | Fed 209A | Fed. 12S3 | e³ | 18.0 | 10,660 |
| | 1 1/8 oz | 1,200 | Fed209A | Win. WAA12SL | e³ | 18.0 | 10,755 |
| **Fed. Paper Target Shell** | 7/8 oz | 1,200 | Fed 209A | Claybuster 4100-12 B | e³ | 16.5 | 6,280 |
| | 7/8 oz | 1,200 | Fed 209A | Win. WAA12L (Gray) | e³ | 16.5 | 6,960 |
| | 7/8 oz | 1,250 | Fed 209A | Claybuster 4100-12 B | e³ | 17.5 | 7,075 |
| | 7/8 oz | 1,250 | Fed 209A | Win. WAA12L (Gray) | e³ | 17.5 | 7,345 |
| | 7/8 oz | 1,300 | Fed 209A | Claybuster 4100-12 B | e³ | 18.5 | 7,400 |
| | 7/8 oz | 1,300 | Fed 209A | Win. WAA12L (Gray) | e³ | 18.5 | 8,230 |
| | 1 oz | 1,200 | Fed 209A | Fed. 12SO | e³ | 17.5 | 8,535 |
| | 1 oz | 1,250 | Fed 209A | Fed. 12C1 | e³ | 18.0 | 9,375 |
| | 1 oz | 1,255 | Fed 209A | Fed. 12SO | e³ | 18.5 | 10,065 |
| | 1 oz | 1,290 | Fed 209A | Fed. 12SO | e³ | 19.5 | 10,630 |
| | 1 1/8 oz | 1,090 | Fed. 209A | Claybuster 4118 | e³ | 15.5 | 7,985 |
| | 1 1/8 oz | 1,145 | Fed 209A | Claybuster 3118-12AR | e³ | 16.5 | 9,375 |
| | 1 1/8 oz | 1,145 | Fed 209A | Rem. Fig. 8 | e³ | 17.0 | 8,765 |
| | 1 1/8 oz | 1,145 | Fed 209A | Rem. RXP12 | e³ | 17.0 | 9,280 |
| | 1 1/8 oz | 1,145 | Fed 209A | Fed. 12C1 | e³ | 17.0 | 9,380 |
| | 1 1/8 oz | 1,145 | Fed 209A | Claybuster 4118 | e³ | 17.0 | 9,385 |
| | 1 1/8 oz | 1,145 | Fed. 209A | Fed. 12S3 | e³ | 17.0 | 9,640 |
| | 1 1/8 oz | 1,145 | Fed 209A | Win. WAA12 (White) | e³ | 17.0 | 9,815 |
| | 1 1/8 oz | 1,200 | Fed 209A | Rem. Fig. 8 | e³ | 18.0 | 9,640 |
| | 1 1/8 oz | 1,200 | Fed 209A | Rem. RXP12 | e³ | 18.0 | 10,320 |

# All data are for 12-gauge, 2 3/4 inch shells ($e^3$ continued)

| Shell Type | Shot Weight (ounces) | Velocity (fps) | Primer | Wad | Powder | Charge Wt. (GRS) | Pressure PSI |
|---|---|---|---|---|---|---|---|
| **Fed. Paper Target Shell** (continued) | 1 1/8 oz | 1,200 | Fed 209A | Claybuster 3118-12AR | $e^3$ | 18.0 | 10,430 |
| | 1 1/8 oz | 1,200 | Fed 209A | Win. WAA12 (White) | $e^3$ | 18.0 | 10,780 |
| | 1 1/8 oz | 1,200 | Fed 209A | Claybuster 4118 | $e^3$ | 18.5 | 9,860 |
| | 1 1/8 oz | 1,200 | Fed 209A | Fed. 12S3 | $e^3$ | 18.5 | 10,955 |
| **Rem. Premier, STS Plastic Target Shell** | 7/8 oz | 1,200 | Rem 209P | Fed. 12SO | $e^3$ | 15.5 | 8,015 |
| | 7/8 oz | 1,200 | Rem 209P | Win. WAA12L (Gray) | $e^3$ | 16.0 | 7,265 |
| | 7/8 oz | 1,200 | Rem 209P | Claybuster 4100-12 B | $e^3$ | 16.2 | 6,195 |
| | 7/8 oz | 1,250 | Rem 209P | Fed. 12SO | $e^3$ | 17.0 | 7,575 |
| | 7/8 oz | 1,250 | Rem 209P | Win. WAA12L (Gray) | $e^3$ | 17.0 | 7,655 |
| | 7/8 oz | 1,250 | Rem 209P | Rem. TGT 12 | $e^3$ | 17.0 | 7,820 |
| | 7/8 oz | 1,250 | Rem 209P | Claybuster 4100-12 B | $e^3$ | 17.2 | 7,045 |
| | 7/8 oz | 1,300 | Rem 209P | Rem. TGT 12 | $e^3$ | 17.8 | 8,585 |
| | 7/8 oz | 1,300 | Rem 209P | Fed. 12SO | $e^3$ | 17.8 | 10,245 |
| | 7/8 oz | 1,300 | Rem 209P | Win. WAA12L (Gray) | $e^3$ | 18.0 | 8,525 |
| | 7/8 oz | 1,300 | Rem 209P | Claybuster 4100-12 B | $e^3$ | 18.2 | 7,580 |
| | 1 oz | 1,150 | Rem 209P | Win. WAA12L (Gray) | $e^3$ | 15.5 | 8,950 |
| | 1 oz | 1,150 | Rem 209P | Claybuster 1100-12 | $e^3$ | 16.0 | 7,730 |
| | 1 oz | 1,150 | Rem. 209P | Rem. TGT 12 | $e^3$ | 16.0 | 7,970 |
| | 1 oz | 1,200 | Rem 209P | Win. WAA12SL | $e^3$ | 16.5 | 10,015 |
| | 1 oz | 1,200 | Rem 209P | Rem. TGT 12 | $e^3$ | 16.9 | 8,550 |
| | 1 oz | 1,200 | Rem 209P | Claybuster 1100-12 | $e^3$ | 17.0 | 8,730 |
| | 1 oz | 1,200 | Rem 209P | Duster - Green | $e^3$ | 17.0 | 9,455 |
| | 1 oz | 1,200 | Rem 209P | Fed. 12SO | $e^3$ | 17.2 | 9,585 |
| | 1 oz | 1,250 | Rem 209P | Rem. TGT 12 | $e^3$ | 18.0 | 9,710 |
| | 1 oz | 1,255 | Rem 209P | Win. WAA12SL | $e^3$ | 17.5 | 10,530 |
| | 1 oz | 1,255 | Rem 209P | Duster - Green | $e^3$ | 17.5 | 10,970 |
| | 1 oz | 1,255 | Rem 209P | Claybuster 1100-12 | $e^3$ | 18.0 | 9,540 |
| | 1 oz | 1,255 | Rem 209P | Fed. 12SO | $e^3$ | 18.3 | 10,330 |
| | 1 oz | 1,290 | Rem 209P | Claybuster 1100-12 | $e^3$ | 19.0 | 10,040 |
| | 1 oz | 1,290 | Rem 209P | Rem. TGT 12 | $e^3$ | 19.0 | 10,850 |
| | 1 1/8 oz | 1,090 | Rem. 209P | Rem. RXP12 | $e^3$ | 15.0 | 8,655 |
| | 1 1/8 oz | 1,090 | Rem. 209P | Rem. Fig. 8 | $e^3$ | 15.0 | 8,760 |
| | 1 1/8 oz | 1,090 | Rem. 209P | Win. WAA12 (White) | $e^3$ | 15.0 | 9,175 |
| | 1 1/8 oz | 1,090 | Rem 209P | Fed. 12S3 | $e^3$ | 15.2 | 8,595 |
| | 1 1/8 oz | 1,090 | Rem 209P | Claybuster 0118 | $e^3$ | 15.4 | 8,075 |
| | 1 1/8 oz | 1,090 | Rem 209P | Claybuster 4118 | $e^3$ | 15.5 | 7,950 |
| | 1 1/8 oz | 1,145 | Rem 209P | Win. WAA12 (White) | $e^3$ | 16.0 | 10,170 |
| | 1 1/8 oz | 1,145 | Rem 209P | Claybuster 0118 | $e^3$ | 16.2 | 8,640 |
| | 1 1/8 oz | 1,145 | Rem 209P | Rem. RXP12 | $e^3$ | 16.3 | 9,465 |
| | 1 1/8 oz | 1,145 | Rem 209P | Claybuster 4118 | $e^3$ | 16.5 | 9,390 |
| | 1 1/8 oz | 1,145 | Rem 209P | Rem. Fig. 8 | $e^3$ | 16.5 | 9,930 |
| | 1 1/8 oz | 1,145 | Rem 209P | Fed. 12S3 | $e^3$ | 16.7 | 10,425 |
| | 1 1/8 oz | 1,200 | Rem 209P | Win. WAA12 (White) | $e^3$ | 17.2 | 10,960 |
| | 1 1/8 oz | 1,200 | Rem 209P | Rem. Fig. 8 | $e^3$ | 17.5 | 10,775 |
| | 1 1/8 oz | 1,200 | Rem 209P | Claybuster 0118 | $e^3$ | 17.7 | 10,575 |
| | 1 1/8 oz | 1,200 | Rem 209P | Rem. RXP12 | $e^3$ | 17.9 | 10,660 |
| | 1 1/8 oz | 1,200 | Rem 209P | Claybuster 4118 | $e^3$ | 18.0 | 10,710 |
| **Win. Plastic AA Shell** | 7/8 oz | 1,200 | Win 209 | Rem. TGT 12 | $e^3$ | 15.7 | 7,380 |
| | 7/8 oz | 1,200 | Win 209 | Claybuster 4100-12 B | $e^3$ | 16.0 | 6,870 |
| | 7/8 oz | 1,200 | Win 209 | Win. WAA12L (Gray) | $e^3$ | 16.0 | 7,425 |
| | 7/8 oz | 1,250 | Win 209 | Rem. TGT 12 | $e^3$ | 16.5 | 8,200 |
| | 7/8 oz | 1,250 | Win 209 | Claybuster 4100-12 B | $e^3$ | 17.0 | 7,475 |
| | 7/8 oz | 1,250 | Win 209 | Win. WAA12L (Gray) | $e^3$ | 17.0 | 8,210 |
| | 7/8 oz | 1,300 | Win 209 | Win. WAA12L (Gray) | $e^3$ | 18.0 | 8,385 |
| | 7/8 oz | 1,300 | Win 209 | Rem. TGT 12 | $e^3$ | 18.3 | 8,730 |
| | 1 oz | 1,150 | Win 209 | Win. WAA12L (Gray) | $e^3$ | 15.0 | 8,635 |
| | 1 oz | 1,150 | Win 209 | Win. WAA12SL | $e^3$ | 15.5 | 8,085 |
| | 1 oz | 1,150 | Win 209 | Rem. TGT 12 | $e^3$ | 15.5 | 8,530 |
| | 1 oz | 1,150 | Win 209 | Claybuster 1100-12 | $e^3$ | 16.0 | 8,285 |
| | 1 oz | 1,150 | Win 209 | Duster - Green | $e^3$ | 16.0 | 8,730 |
| | 1 oz | 1,200 | Win 209 | Win. WAA12SL | $e^3$ | 16.5 | 9,240 |
| | 1 oz | 1,200 | Win 209 | Rem. TGT 12 | $e^3$ | 16.5 | 9,305 |
| | 1 oz | 1,200 | Win 209 | Win. WAA12L (Gray) | $e^3$ | 16.5 | 9,410 |
| | 1 oz | 1,200 | Win 209 | Claybuster 1100-12 | $e^3$ | 17.0 | 8,805 |
| | 1 oz | 1,200 | Win 209 | Duster - Green | $e^3$ | 17.0 | 9,525 |
| | 1 oz | 1,255 | Win 209 | Win. WAA12L (Gray) | $e^3$ | 17.5 | 9,740 |
| | 1 oz | 1,255 | Win 209 | Rem. TGT 12 | $e^3$ | 17.5 | 10,070 |
| | 1 oz | 1,255 | Win 209 | Claybuster 1100-12 | $e^3$ | 18.0 | 9,245 |
| | 1 oz | 1,255 | Win 209 | Win. WAA12SL | $e^3$ | 18.0 | 10,045 |

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# ALLIANT POWDER — PROV

## SHO

### RED DOT®


**Light and Standard 12 ga. Target**

The Number 1 premium clay target powder, now 50% cleaner burning

### e³®


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The first of a new generation of high performance powders

### GREEN DOT®


**12 ga. Standard & Target**

Best long range clay target powder creating tight and uniform patterns

### AMERICAN SELECT®


**12 ga. Target**

Premium ultra clean burning target powder, excellent patterns and less felt recoil

### PROMO®


**Light and Standard 12 ga. Target**

Economical target shotshell powder

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**High Performance 9mm, .40 S&W & 10mm**

Best choice for high performance 9mm, .40 S&W, and 10mm

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**Magnum Handgun**

Legendary for its performance in .44 Mag and other magnum pistol loads

### RELODER® 7


**Light Rifle**

Great in .458 Win Mag and moderate loads in .30-06, .308 Win and .30-30 Win

### RELODER® 10X


**Light Varmint/Light Bu**

For light bullet applications in .222 Rem, .22-250 Rem and .223 Rem

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OPTIMU

SECONDA

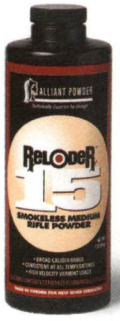
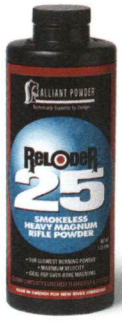
REM

# N POWDERS FOR RELOADERS

## GUN

| 410® | BLUE DOT® | STEEL® | HERCO® | UNIQUE® |
|---|---|---|---|---|
|  |  |  |  |  |
| **I LOADS** | | | | |
| .410 Shotshell | Magnum Shotshell: 10, 12, 16, 20 & 28 ga. | Non-Toxic Hunting Shotshell | Heavy Shotshell: 10, 12, 16, 20, & 28 ga. | Universal Shotshell Powder, 12, 16, 20 & 28 ga. |
| **RY LOADS** | | | | |
| None | Magnum Handgun | 2 oz. Turkey | Heavy Handgun | Handgun |
| **RKS** | | | | |
| leanest .410 bore owder on the market | Powder of choice for magnum hunting loads | The only powder designed specifically for Steel Shotshell | Outstanding 12 ga. heavy hunting and target loads | The world's most versatile reloading powder |

## RIFLE

| RELODER® 15 | RELODER® 19 | RELODER® 22 | RELODER® 25 |
|---|---|---|---|
|  |  |  |  |
| **LOADS** | | | |
| Medium Rifle | Std. Rifle | Magnum Rifle | Heavy Magnum Rifle |
| **Y LOADS** | | | |
| Silhouette Rifle | Light Magnum Rifle | Heavy Bullet Stand Rifle | Magnum Rifle |
| **RKS** | | | |
| xcellent in short action alibers | Superb in .30-06 and .338 Win Mag | Outstanding in 7mm Mag and .300 Win Mag applications | Delivers High Energy for Weatherby Magnums and other large capacity cartridges |

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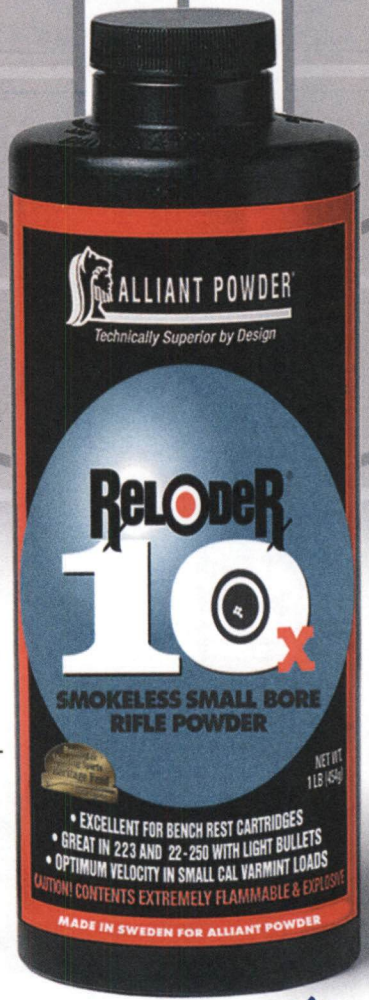
If you take pride in your accuracy, Reloder 10X™ Powder from Alliant will give you a lot to be proud of. Developed for the requirements of small caliber bench rest and varmint shooters, clean-burning Reloder 10X Powder delivers premium quality, superior consistency and outstanding performance. With minimum copper fouling and optimum velocity,




Alliant 10X is The Powder of Choice in light bullet 223 Rem, 22-250 Rem, 6mm BR and other small caliber loads.

Reloder 10X is so new it hasn't had time to become one of our best selling powders yet. And that's as it should be. After all, when we created 10X, large groups were the last things we were aiming for.

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## All data are for 12-gauge, 2 3/4 inch shells ($e^3$ continued)

| Shell Type | Shot Weight (ounces) | Velocity (fps) | Primer | Wad | Powder | Charge Wt. (GRS) | Pressure PSI |
|---|---|---|---|---|---|---|---|
| **2 3/4 inch Win. Plastic AA Shell** (continued) | 1 oz | 1,255 | Win 209 | Duster - Green | $e^3$ | 18.0 | 10,580 |
| | 1 oz | 1,290 | Win 209 | Win. WAA12SL | $e^3$ | 18.5 | 10,080 |
| | 1 oz | 1,290 | Win 209 | Win. WAA12L (Gray) | $e^3$ | 18.5 | 10,870 |
| | 1 oz | 1,290 | Win 209 | Rem. TGT 12 | $e^3$ | 18.5 | 11,015 |
| | 1 oz | 1,290 | Win 209 | Claybuster 1100-12 | $e^3$ | 19.0 | 10,135 |
| | 1 1/8 oz | 1,090 | Win 209 | Rem. Fig. 8 | $e^3$ | 15.0 | 8,520 |
| | 1 1/8 oz | 1,090 | Win 209 | Claybuster 4118 | $e^3$ | 15.0 | 8,555 |
| | 1 1/8 oz | 1,090 | Win 209 | Win. WAA12SL | $e^3$ | 15.0 | 8,645 |
| | 1 1/8 oz | 1,090 | Win 209 | Rem. RXP12 | $e^3$ | 15.0 | 8,700 |
| | 1 1/8 oz | 1,090 | Win 209 | Claybuster 0118 | $e^3$ | 15.0 | 8,905 |
| | 1 1/8 oz | 1,090 | Win 209 | Duster - Blue | $e^3$ | 15.0 | 9,015 |
| | 1 1/8 oz | 1,090 | Win 209 | Win. WAA12 (White) | $e^3$ | 15.0 | 9,090 |
| | 1 1/8 oz | 1,145 | Win 209 | Claybuster 0118 | $e^3$ | 16.0 | 9,060 |
| | 1 1/8 oz | 1,145 | Win 209 | Rem. Fig. 8 | $e^3$ | 16.0 | 9,325 |
| | 1 1/8 oz | 1,145 | Win 209 | Win. WAA12SL | $e^3$ | 16.0 | 9,625 |
| | 1 1/8 oz | 1,145 | Win 209 | Win. WAA12 (White) | $e^3$ | 16.0 | 9,900 |
| | 1 1/8 oz | 1,145 | Win 209 | Duster - Blue | $e^3$ | 16.0 | 10,265 |
| | 1 1/8 oz | 1,145 | Win 209 | Rem. RXP12 | $e^3$ | 16.5 | 9,835 |
| | 1 1/8 oz | 1,145 | Win 209 | Claybuster 4118 | $e^3$ | 16.5 | 9,835 |
| | 1 1/8 oz | 1,200 | Win 209 | Claybuster 0118 | $e^3$ | 17.0 | 9,970 |
| | 1 1/8 oz | 1,200 | Win 209 | Win. WAA12 (White) | $e^3$ | 17.0 | 10,450 |
| | 1 1/8 oz | 1,200 | Win 209 | Duster - Blue | $e^3$ | 17.0 | 10,505 |
| | 1 1/8 oz | 1,200 | Win 209 | Claybuster 4118 | $e^3$ | 17.5 | 10,855 |
| | 1 1/8 oz | 1,200 | Win 209 | Rem. Fig. 8 | $e^3$ | 17.5 | 10,920 |

# INTERNATIONAL  LOADS

## 24-Gram International Target Loads with 12-Gauge, 2 3/4 inch Fed. Gold Medal Plastic Target Shells

| Dram Equiv. | Velocity (fps) | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 |
|---|---|---|---|---|---|---|---|---|---|
| 3 1/2 | 1,345 | Fed. 209A | Claybuster 1100-12 | 20.0 | 8.7 | 21.0 | 8.0 | | |
| | | | Fed. 12SO | 20.0 | 8.9 | 20.5 | 7.9 | | |
| | | | Purple PC | 19.5 | 8.7 | | | | |
| | | | Rem. TGT 12 | 20.5 | 8.9 | 21.0 | 8.1 | | |
| | | | Win. WAA12L (Gray) | 20.0 | 9.0 | 21.5 | 8.1 | | |

## 24-Gram International Target Loads with 12-Gauge, 2 3/4 inch Fiocchi Plastic Target Shells

| Dram Equiv. | Velocity (fps) | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 |
|---|---|---|---|---|---|---|---|---|---|
| 3 1/2 | 1,345 | Fio. 616 | Fed. 12SO | 20.5 | 8.7 | 22.0 | 7.8 | | |
| | | | Purple PC | | | 22.5 | 6.9 | | |
| | | | Rem. TGT 12 | 20.5 | 8.2 | 22.0 | 7.6 | | |
| | | | Win. WAA12L (Gray) | 21.0 | 8.5 | 22.0 | 7.5 | | |

## 24-Gram International Target Loads with 12-Gauge, 2 3/4 inch Rem. Premier,STS Plastic Target Shells

| Dram Equiv. | Velocity (fps) | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 |
|---|---|---|---|---|---|---|---|---|---|
| 3 1/2 | 1,345 | Rem. 209P | Claybuster 1100-12 | 20.5 | 8.8 | 20.5 | 8.7 | | |
| | | | Fed. 12SO | 20.0 | 9.8 | 20.5 | 9.6 | | |
| | | | Purple PC | 20.5 | 8.3 | 21.0 | 8.1 | | |
| | | | Rem. TGT 12 | 20.5 | 9.2 | 20.5 | 8.5 | | |
| | | | Win. WAA12L (Gray) | 20.5 | 9.8 | 20.5 | 8.7 | | |

## 24-Gram International Target Loads with 12-Gauge, 2 3/4 inch Win. AA Plastic Target Shells

| Dram Equiv. | Velocity (fps) | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 |
|---|---|---|---|---|---|---|---|---|---|
| 3 1/2 | 1,345 | Win. 209 | Claybuster 1100-12 | 20.0 | 9.6 | 20.5 | 8.7 | | |
| | | | Fed. 12SO | 20.0 | 10.1 | 20.5 | 9.1 | | |
| | | | Purple PC | 20.0 | 9.0 | 21.0 | 8.1 | | |
| | | | Rem. TGT 12 | 20.0 | 9.6 | 20.5 | 8.6 | | |
| | | | Win. WAA12L (Gray) | 20.0 | 10.2 | 20.5 | 9.7 | | |

## 28-Gram International Target Loads with 12-Gauge, 2 3/4 inch Fed. Gold Medal Plastic Target Shells

| Dram Equiv. | Velocity (fps) | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 |
|---|---|---|---|---|---|---|---|---|---|
| 3 1/2 | 1,345 | Fed. 209A | Fed. 12SO | 23.0 | 9.9 | | | 24.5 | 9.1 |
| | | | Purple PC | 23.0 | 8.8 | | | 25.0 | 8.2 |
| | | | Rem. Fig. 8 | 22.5 | 9.5 | | | 25.0 | 8.4 |
| | | | Win. WAA12SL | 22.5 | 9.6 | | | 24.5 | 8.4 |

## 28-Gram International Target Loads with 12-Gauge, 2 3/4 inch Fiocchi Plastic Target Shells

| Dram Equiv. | Velocity (fps) | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 |
|---|---|---|---|---|---|---|---|---|---|
| 3 1/2 | 1,345 | Fio. 616 | Fed. 12S3 | 22.0 | 9.6 | | | 24.0 | 8.8 |
| | | | Purple PC | 22.5 | 9.5 | | | 24.0 | 8.8 |
| | | | Rem. Fig. 8 | 21.5 | 9.7 | | | 24.0 | 8.8 |
| | | | Win. WAA12SL | 21.5 | 10.4 | | | 24.0 | 8.8 |

## 28-Gram International Target Loads with 12-Gauge, 2 3/4 inch Rem. Premier Plastic Target Shells

| Dram Equiv. | Velocity (fps) | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 |
|---|---|---|---|---|---|---|---|---|---|
| 3 1/2 | 1,345 | Rem. 209P | Fed. 12S3 | | | | | 23.0 | 10.3 |
| | | | Purple PC | 21.5 | 10.6 | | | 24.0 | 9.9 |
| | | | Rem. Fig. 8 | 21.5 | 10.6 | | | 23.0 | 9.7 |
| | | | Win. WAA12SL | | | | | 23.0 | 10.1 |

## 28-Gram International Target Loads with 12-Gauge, 2 3/4 inch Win.-Western Plastic AA-Type Shells

| Dram Equiv. | Velocity (fps) | Primer | Wad | Red Dot Grains | Red Dot psi x1000 | American Select Grains | American Select psi x1000 | Green Dot Grains | Green Dot psi x1000 |
|---|---|---|---|---|---|---|---|---|---|
| 3 1/2 | 1,345 | Win. 209 | Fed. 12S3 | | | | | | |
| | | | Purple PC | | | | | 23.0 | 9.5 |
| | | | Rem. Fig. 8 | | | | | 22.5 | 10.6 |
| | | | Win. WAA12SL | | | | | | |

# NON-TOXIC SHOTSHELL RELOADING DATA

**WARNING: Reloading steel shotshells requires strict adherence to Alliant published reloading specifications. The reloading specifications provided in this publication were derived through the use of controlled laboratory conditions. While reloading steel shotshells, the reloader must adhere precisely to all the components, without exception, set forth in the load data and specifications. Alliant recommends that both powder charge and shot charge be individually weighed to insure compliance to the load data. Steel shotshells should only be used in well maintained firearms that are designed to shoot steel shot loads. Alliant recommends that commercially available shotshell sealant be applied to both the primer and crimp areas to prevent moisture penetration.**

**Regarding the use of fillers/spacers:**

**Spacer or filler wads serve the purpose of raising the shot column to a level that will allow for the forming of a good crimp. If a filler is required for a particular load, the thickness and location of that filler will be indicated in the "spacer" column. As an example, it might be described in the following manner: 1/8 U, 1/8 O, which means that two 1/8 inch thick spacers are required; one should be placed in the bottom of the wad cup directly under the shot, and a second one over the shot. Spacers can be stacked if necessary, and the number needed may vary depending on the size shot being used. If your crimp dishes in a bit, or bulges, you can add to or reduce the number of spacers to improve the crimp. Only slight adjustments, if any, will be necessary for this reason. We do not recommend the use of shot buffer in any of our loads.**

## Steel Shot Only
## 10-Gauge, 3 1/2-inch Shells

| Shell Type | Wad | Primer | Powder | Shot Weight (ounces) | Velocity (fps) | Grains | psi (x1000) | Spacers |
|---|---|---|---|---|---|---|---|---|
| Remington (yellow plastic base wad) | Precision Reloading TUPRW105 | Fed. 209A | Steel | 1 1/4 | 1,590 | 50.0 | 9.8 | 1/2 U |
| Remington (yellow plastic base wad) | Ballistic Products #3221000 | Fed. 209A | Steel | 1 5/8 | 1,310 | 37.0 | 10.1 | none |
| Remington Plastic SP | Precision Reloading TUPRW105 | Fed. 209A | Steel | 1 3/8 | 1,475 | 43.5 | 10.0 | 3/8 U |
| Remington Plastic SP | Ballistic Products #3221000 | Fed. 209A | Steel | 1 3/8 | 1,535 | 46.0 | 10.1 | 3/8 U |
| Remington Plastic SP | Rel. Specialties "SAM 1" 10 ga 3 1/2" | Fed. 209A | Steel | 1 3/8 | 1,555 | 48.0 | 10.3 | 1/4 U |
| Remington Plastic SP | Precision Reloading TUPRW105 | Fed. 209A | Steel | 1 1/2 | 1,345 | 37.5 | 10.3 | 1/4 U |
| Remington Plastic SP | Ballistic Products #3221000 | Fed. 209A | Steel | 1 1/2 | 1,385 | 39.0 | 10.1 | 1/4 U |
| Remington Plastic SP | Rel. Specialties "SAM 1" 10 ga 3 1/2" | Fed. 209A | Steel | 1 1/2 | 1,470 | 45.0 | 10.1 | 1/8 U |
| Winchester Polyformed | Rel. Specialties "SAM 1" 10 ga 3 1/2" | Fed. 209A | Steel | 1 3/8 | 1,538 | 45.5 | 10.2 | 1/4 U |
| Winchester Polyformed | Rel. Specialties "SAM 1" 10 ga 3 1/2" | Fed. 209A | Steel | 1 1/2 | 1,415 | 41.0 | 9.9 | 1/8 U |

## Steel Shot Only
## 12-Gauge, 2 3/4-inch Shells

| Shell Type | Wad | Primer | Powder | Shot Weight (ounces) | Velocity (fps) | Grains | psi (x1000) | Spacers |
|---|---|---|---|---|---|---|---|---|
| Federal Gold Medal | Rel. Specialties "SAM 1" 12 ga 2 3/4 | Fed. 209A | Steel | 7/8 | 1,700 | 42.0 | 7.8 | 1/8 U |
| Federal Gold Medal | Ballistic Products #3221275 | Fed. 209A | Steel | 7/8 | 1,765 | 45.0 | 9.0 | none |
| Federal Gold Medal | Ballistic Products #3221275 | Fed. 209A | Steel | 1 | 1,480 | 33.0 | 9.5 | 1/8 U |
| Federal Gold Medal | Precision Reloading TUPRW12 | Fed. 209A | Steel | 1 | 1,500 | 37.0 | 8.0 | 1/8 U |
| Federal Gold Medal | Rel. Specialties "SAM 1" 12 ga 2 3/4 | Fed. 209A | Steel | 1 | 1,520 | 36.0 | 9.2 | none |
| Federal Gold Medal | Rel. Specialties "SAM 1" 12 ga 2 3/4 | Fed. 209A | Steel | 1 1/8 | 1,380 | 32.0 | 9.0 | none |
| Federal Gold Medal | Precision Rel. TUPRW12 | Fed. 209A | Steel | 1 1/8 | 1,425 | 32.0 | 9.6 | none |
| Remington Nitro Mag | Precision Rel. TUPRW12 | Fed. 209A | Steel | 1 | 1,520 | 35.5 | 10.8 | none |
| Remington Nitro Mag | Rel. Specialties "SAM 1 12 ga 2 3/4 | Fed. 209A | Steel | 1 | 1,546 | 35.5 | 10.3 | none |
| Remington Nitro Mag | Precision Rel. TUPRW12 | Fed. 209A | Steel | 1 1/8 | 1,361 | 29.5 | 10.4 | none |
| Remington Nitro Mag | Rel. Specialties "SAM 1" 12 ga 2 3/4 | Fed. 209A | Steel | 1 1/8 | 1,428 | 32.5 | 10.4 | none |

## Steel Shot Only
## 12-Gauge, 3 inch Shells

| Shell Type | Wad | Primer | Powder | Shot Weight (ounces) | Velocity (fps) | Grains | psi (x1000) | Spacers |
|---|---|---|---|---|---|---|---|---|
| Federal 0.090 Integral Base Wad | Precision Reloading TUPRW123 | Fed. 209A | Steel | 1 | 1,660 | 44.0 | 9.4 | 1/4 U |
| Federal 0.090 Integral Base Wad | Ballistic Products #3221230 | Fed. 209A | Steel | 1 | 1,690 | 45.0 | 10.5 | 3/8 U |
| Federal 0.090 Integral Base Wad | Rel. Specialties 12 ga 3" | Fed. 209A | Steel | 1 | 1,720 | 47.0 | 8.9 | 3/8 U |
| Federal 0.090 Integral Base Wad | Ballistic Products #3221230 | Fed. 209A | Steel | 1 1/8 | 1,510 | 37.0 | 10.4 | 1/4 U |
| Federal 0.090 Integral Base Wad | Precision Reloading TUPRW123 | Fed. 209A | Steel | 1 1/8 | 1,515 | 38.0 | 10.9 | 1/4 U |
| Federal 0.090 Integral Base Wad | Rel. Specialties 12 ga 3" | Fed. 209A | Steel | 1 1/8 | 1,580 | 40.5 | 10.7 | 1/8 U |
| Federal 0.090 Integral Base Wad | Precision Reloading TUPRW123 | Fed. 209A | Steel | 1 1/4 | 1,355 | 33.0 | 10.5 | 1/8 U |
| Federal 0.090 Integral Base Wad | Ballistic Products #3221230 | Fed. 209A | Steel | 1 1/4 | 1,370 | 33.0 | 10.5 | 1/8 U |
| Federal 0.090 Integral Base Wad | Rel. Specialties 12 ga 3" | Fed. 209A | Steel | 1 1/4 | 1,455 | 37.0 | 10.8 | 1/8 U |
| Federal Hi-Power 7/16 Base Wad | Ballistic Products #3221230 | Fed. 209A | Steel | 1 | 1,665 | 45.0 | 8.9 | 1/4 U |
| Federal Hi-Power 7/16 Base Wad | Rel. Specialties 12 ga 3" | Fed. 209A | Steel | 1 | 1,700 | 48.0 | 8.2 | 1/4 U |
| Federal Hi-Power 7/16 Base Wad | Ballistic Products #3221230 | Fed. 209A | Steel | 1 1/8 | 1,550 | 39.5 | 10.6 | 1/4 U |
| Federal Hi-Power 7/16 Base Wad | Rel. Specialties 12 ga 3" | Fed. 209A | Steel | 1 1/8 | 1,560 | 40.5 | 10.5 | 1/8 U |
| Federal Hi-Power 7/16 Base Wad | Ballistic Products #3221230 | Fed. 209A | Steel | 1 1/4 | 1,390 | 33.0 | 10.9 | 1/4 U |
| Federal Hi-Power 7/16 Base Wad | Rel. Specialties 12 ga 3" | Fed. 209A | Steel | 1 1/4 | 1,430 | 36.0 | 10.5 | none |
| Remington Nitro Steel | Ballistic Products #3221230 | Fed. 209A | Steel | 1 1/8 | 1,440 | 33.5 | 10.8 | 1/4 U |
| Remington Nitro Steel | Precision Reloading TUPRW123 | Fed. 209A | Steel | 1 1/8 | 1,457 | 35.0 | 10.7 | 1/4 U |
| Remington Nitro Steel | Rel. Specialties 12 ga 3" | Fed. 209A | Steel | 1 1/8 | 1,479 | 33.0 | 10.6 | 1/4 U |
| Remington Nitro Steel | Precision Reloading TUPRW123 | Fed. 209A | Steel | 1 1/4 | 1,392 | 32.0 | 10.7 | 1/8 U |

## Steel Shot Only
## 12-Gauge, 3 1/2-inch Shells

| Shell Type | Wad | Primer | Shot Weight (ounces) | Velocity (fps) | Grains | psi (x1000) | Spacers |
|---|---|---|---|---|---|---|---|
| Federal Integral Base Wad | Reloading Specialties "SAM 1" | Fed. 209A | 1 1/4 | 1,510 | 45.0 | 10.4 | 3/8 U |
| Federal Integral Base Wad | Ballistic Products mm12312 | Fed. 209A | 1 1/4 | 1,560 | 45.0 | 10.9 | 1/8 U |
| Federal Integral Base Wad | Precision Reloading TUPRW1235 | Fed. 209A | 1 1/4 | 1,565 | 45.0 | 10.7 | 1/2 U |
| Federal Integral Base Wad | Precision Reloading TUPRW1235 | Fed. 209A | 1 3/8 | 1,470 | 40.0 | 12.5 | 3/8 U |
| Federal Integral Base Wad | Ballistic Products mm12312 | Fed. 209A | 1 3/8 | 1,485 | 41.5 | 12.6 | 3/8 U |
| Federal Integral Base Wad | Precision Reloading TUPRW1235 | Fed. 209A | 1 1/2 | 1,360 | 36.0 | 12.6 | 3/8 U |
| Federal Integral Base Wad | Ballistic Products mm12312 | Fed. 209A | 1 1/2 | 1,385 | 37.0 | 12.8 | 1/4 U |
| Federal Integral Base Wad | Reloading Specialties "SAM 1" | Fed. 209A | 1 1/2 | 1,390 | 39.0 | 13.3 | 1/4 U |
| Remington Plastic SP | Reloading Specialties "SAM 1" | Fed. 209A | 1 1/4 | 1,595 | 45.0 | 13.1 | 3/8 U |
| Remington Plastic SP | Ballistic Products mm12312 | Fed. 209A | 1 1/4 | 1,615 | 45.0 | 13.3 | 3/8 U |
| Remington Plastic SP | Ballistic Products mm12312 | Fed. 209A | 1 3/8 | 1,430 | 37.0 | 12.8 | 1/4 U |
| Remington Plastic SP | Reloading Specialties "SAM 1" | Fed. 209A | 1 3/8 | 1,430 | 38.5 | 12.8 | 3/8 U |
| Remington Plastic SP | Ballistic Products mm12312 | Fed. 209A | 1 1/2 | 1,305 | 33.0 | 13.0 | 1/4 U |
| Remington Plastic SP | Reloading Specialties "SAM 1" | Fed. 209A | 1 1/2 | 1,330 | 35.0 | 13.0 | 1/4 U |

## Bismuth Shot Only
## 12-Gauge, 2 3/4-inch Shells

| Shell Type | Wad | Primer | Powder | Shot Weight (ounces) | Velocity (fps) | Grains | psi (x1000) | Spacers |
|---|---|---|---|---|---|---|---|---|
| Federal 7/16 Paper Base Wad | Rem. RP12 | Fed. 209A | Herco | 1 1/8 | 1,300 | 27.0 | 9.5 | 1/8, 0 |
| Remington premier STS | Rem. RP12 | Fed. 209A | Herco | 1 1/8 | 1,292 | 26.0 | 10.4 | 1/8, 0 |
| Remington premier STS | Claybuster 1138-12 | Fed. 209A | Blue Dot | 1 1/4 | 1,421 | 39.5 | 10.1 | None |

## Bismuth Shot Only
## 12-Gauge, 3-inch Shells

| Shell Type | Wad | Primer | Powder | Shot Weight (ounces) | Velocity (fps) | Grains | psi (x1000) | Spacers |
|---|---|---|---|---|---|---|---|---|
| Federal .090 Integral Base Wad | Rem. SP12 | Fed. 209A | Blue Dot | 1 3/8 | 1,507 | 46.0 | 10.7 | 1/8, O |
| Federal .090 Integral Base Wad | Fed. 1254 | Fed. 209A | Blue Dot | 1 1/2 | 1,310 | 38.0 | 10.1 | None |
| Federal .090 Integral Base Wad | Rem. RP12 | Fed. 209A | Blue Dot | 1 1/2 | 1,359 | 40.0 | 10.8 | 1/4, O |
| Federal 7/16 Paper Base Wad | Rem. SP12 | Fed. 209A | Blue Dot | 1 3/8 | 1,464 | 43.5 | 10.7 | 1/4, O |
| Federal 7/16 Paper Base Wad | Rem. RP12 | Fed. 209A | Blue Dot | 1 1/2 | 1,347 | 39.0 | 10.4 | 1/8, O |
| Remington SPELV plastic Base Wad | Rem. RP12 | Fed. 209A | Blue Dot | 1 3/8 | 1,473 | 44.0 | 10.7 | 1/8, O |
| Remington SPELV plastic Base Wad | Rem. SP12 | Fed. 209A | Blue Dot | 1 3/8 | 1,564 | 50.0 | 10.7 | None |
| Remington SPELV plastic Base Wad | Rem. RP12 | Fed. 209A | Blue Dot | 1 1/2 | 1,441 | 45.0 | 10.7 | None |

## Hevi Shot Only
## 12-Gauge, 2 3/4-inch Shells

| Shell Type | Wad | Primer | Powder | Shot Weight (ounces) | Velocity (fps) | Grains | psi (x1000) | Spacers |
|---|---|---|---|---|---|---|---|---|
| Federal 7/16 Paper Base Wad | Precision Reloading TUPRWIZ (White) | Fed. 209A | STEEL | 1 3/8 | 1,320 | 33.5 | 10.6 | 1/8 O, 1/4 U |
| Remington SPELV plastic | Precision Reloading TUPRWIZ (White) | Fed. 209A | STEEL | 1 1/4 | 1,367 | 32.2 | 10.9 | 1/4 O, 1/4 U |
| Remington SPELV plastic | Precision Reloading TUPRWIZ (White) | Fed. 209A | STEEL | 1 3/8 | 1,291 | 31.3 | 10.4 | 1/8 O, 1/4 U |

## Hevi Shot Only
## 12-Gauge, 3-inch Shells

| Shell Type | Wad | Primer | Powder | Shot Weight (ounces) | Velocity (fps) | Grains | psi (x1000) | Spacers |
|---|---|---|---|---|---|---|---|---|
| Federal .090 Integral Base Wad | Precision Reloading TUPR23 (Orange) | Fed. 209A | STEEL | 1 3/8 | 1,372 | 40.0 | 10.3 | 3/8 U |
| Federal .090 Integral Base Wad | Precision Reloading TUPR23 (Orange) | Fed. 209A | STEEL | 1 1/2 | 1,294 | 34.0 | 10.9 | 3/8 U |
| Federal 7/16 Paper Base Wad | Precision Reloading TUPR23 (Orange) | Fed. 209A | STEEL | 1 3/8 | 1,371 | 36.5 | 10.6 | 3/8 U |
| Federal 7/16 Paper Base Wad | Precision Reloading TUPR23 (Orange) | Fed. 209A | STEEL | 1 1/2 | 1,274 | 33.0 | 10.5 | 1/4 U |
| Remington SPELV plastic | Precision Reloading TUPR23 (Orange) | Fed. 209A | STEEL | 1 1/4 | 1,462 | 40.0 | 10.3 | 3/8 U |
| Remington SPELV plastic | Precision Reloading TUPR23 (Orange) | Fed. 209A | STEEL | 1 3/8 | 1,385 | 37.5 | 10.9 | 3/8 U |
| Remington SPELV plastic | Precision Reloading TUPR23 (Orange) | Fed. 209A | STEEL | 1 1/2 | 1,259 | 33.0 | 10.9 | 1/4 U |

# BUCKSHOT RELOADING

## 10-Gauge, 3 1/2 inch Fed. Plastic Shell Buckshot Loads

| Primer | Shell | No. and Size Buckshot | Velocity (fps) | Wad | Unique Grains | Unique psi (x1000) | Herco Grains | Herco psi (x1000) | Blue Dot Grains | Blue Dot psi (x1000) | 2400 Grains | 2400 psi (x1000) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed. 209 | Fed. Plastic Shell | 40-4's | 1,275 | SP10+.270 in. 20 ga. Card | | | | | 45.0 | 10.1 | | |
| | | 17-0's | 1,300 | SP10+.135 in. 20 ga. Card | | | | | 46.0 | 10.0 | | |
| Rem. 57* | Rem. Plastic Shell | 40-4's | 1,275 | SP10+.270 in. 20 ga. Card | | | | | 46.0 | 10.1 | | |
| | | 17-0's | 1,300 | SP10+.135 in. 20 ga. Card | | | | | 48.5 | 9.8 | | |
| Win. 209 | Win.-Western Plastic Shell | 40-4's | 1,275 | SP10+.270 in. 20 ga. Card | | | | | 47.5 | 10.0 | | |
| | | 17-0's | 1,300 | SP10 | | | | | 51.0 | 9.5 | | |

## 12-Gauge, 3 inch Fed. Buckshot Loads

| Primer | Shell | No. and Size Buckshot | Velocity (fps) | Wad | Unique Grains | Unique psi (x1000) | Herco Grains | Herco psi (x1000) | Blue Dot Grains | Blue Dot psi (x1000) | 2400 Grains | 2400 psi (x1000) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed. 209 | Hi Power Shell | 18-1's | 1,225 | Bal. Prod. GS&SC | | | | | 36.0 | 9.7 | | |
| | | 33-4's | 1,250 | Bal. Prod. GS&SC | | | | | 37.0 | 10.5 | 50.0 | 8.1 |
| | | 12-0's | 1,275 | RP12+.200 in. 20 ga. Card | | | 31.5 | 9.8 | | | | |
| Rem. 97* | Unibody Shell | 18-1's | 1,225 | Bal. Prod. GS&SC | | | | | 35.5 | 9.8 | | |
| | | 33-4's | 1,250 | Bal. Prod. GS&SC | | | | | | | 46.0 | 9.4 |
| | | 12-0's | 1,275 | RP12+.200 in. 20 ga. Card | | | 29.5 | 10.0 | | | | |

## 20-Gauge, 2 3/4 inch Fed. Hi Power Plastic Buckshot Loads

| Primer | Shell | No. and Size Buckshot | Velocity (fps) | Wad | Unique Grains | Unique psi (x1000) | Herco Grains | Herco psi (x1000) | Blue Dot Grains | Blue Dot psi (x1000) | 2400 Grains | 2400 psi (x1000) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed. 209 | Fed. Hi Power Plastic Shell | 24-3's | 1,200 | Rem. SP20 Petals Removed | | | | | 24.0 | 11.2 | | |
| | | 18-4's | 1,275 | Rem. SP20 | | | 19.0 | 11.0 | 25.0 | 9.3 | | |
| | | 12-1's | 1,275 | Rem. SP20 Petals Removed | | | | | 25.5 | 10.1 | | |
| Win. 209 | Win.-Western AA-Type Shell | 18-4's | 1,275 | Rem. SP20 | | | | | 24.0 | 9.6 | | |
| | | 12-1's | 1,275 | Rem. SP20 Petals Removed | | | | | 25.5 | 10.4 | | |

## 20-Gauge, 3 inch Fed. Buckshot Loads

| Primer | Shell | No. and Size Buckshot | Velocity (fps) | Wad | Unique Grains | Unique psi (x1000) | Herco Grains | Herco psi (x1000) | Blue Dot Grains | Blue Dot psi (x1000) | 2400 Grains | 2400 psi (x1000) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fed. 209 | Hi Power Plastic Shell | 18-3's | 1,220 | Rem. RXP20 | | | 19.5 | 8.4 | | | | |
| | | 21-3's | 1,220 | Rem. SP20 | | | | | 26.0 | 7.8 | | |
| Win. 209 | AA-Type Shell | 21-3's | 1,200 | Rem. RP20 | | | | | 25.0 | 9.4 | | |
| | | 18-3's | 1,220 | Win. WAA20F1 | | | 19.0 | 9.5 | | | | |

# RIFLED SLUG LOADS

## 12-Gauge, 2 3/4 inch Federal Gold Medal

| Slug Wt. | Primer | Velocity (fps) | Wad | Herco Grains | Herco psi (x1000) | Blue Dot Grains | Blue Dot psi (x1000) |
|---|---|---|---|---|---|---|---|
| 1 oz., Lee | Fed. 209A | 1,538 | Win. WAA12 (White) | 34.0 | 10.4 | | |
| 1 oz., Lee | Fed. 209A | 1,690 | Win. WAA12 (White) | | | 49.0 | 10.2 |

## 12-Gauge, 2 3/4 inch Remington Premier, STS

| Slug Wt. | Primer | Velocity (fps) | Wad | Herco Grains | Herco psi (x1000) | Blue Dot Grains | Blue Dot psi (x1000) |
|---|---|---|---|---|---|---|---|
| 1 oz., Lee | Win. 209 | 1,522 | Win. WAA12 (White) | 34.0 | 10.4 | | |
| 1 oz., Lee | Win. 209 | 1,673 | Win. WAA12 (White) | | | 49.0 | 10.2 |

## 12-Gauge, 2 3/4 inch Winchester AA

| Slug Wt. | Primer | Velocity (fps) | Wad | Herco Grains | Herco psi (x1000) | Blue Dot Grains | Blue Dot psi (x1000) |
|---|---|---|---|---|---|---|---|
| 1 oz., Lee | Win. 209 | 1,587 | Win. WAA12 (White) | 36.0 | 10.6 | | |

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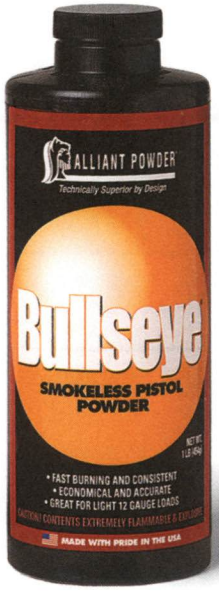


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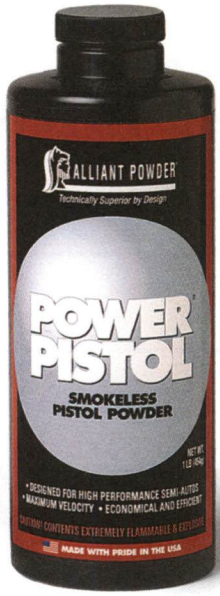


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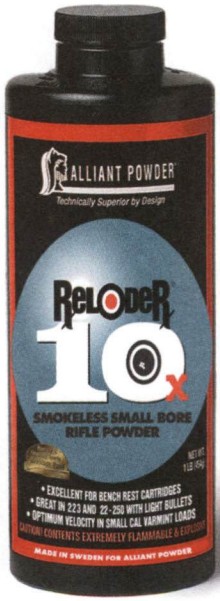


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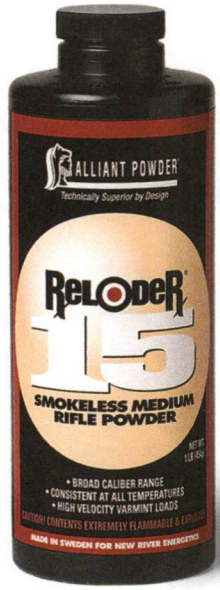


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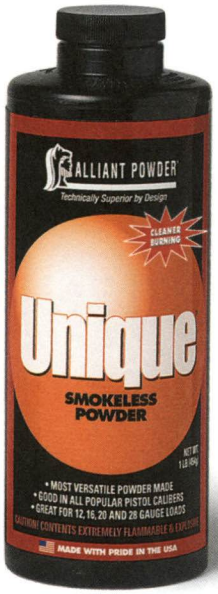


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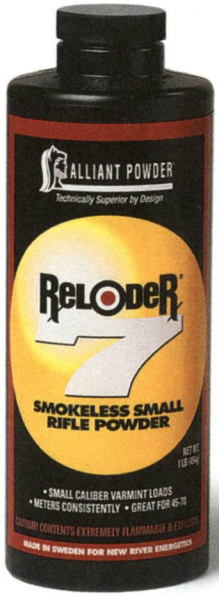


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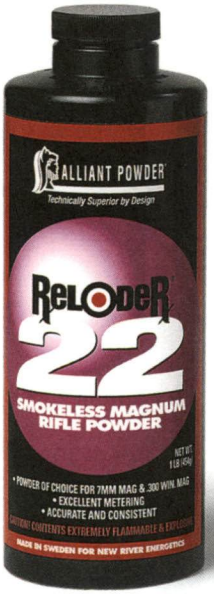


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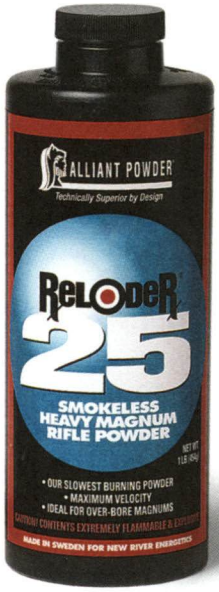


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# PISTOL/REVOLVER RELOADING DATA

## Pistol and Revolver Loads

| Cartridge/Bullet | Primer | Min. OAL (inches) | Bbl Length | Bullseye Chg Wt | Bullseye fps | Bullseye psi x1000 | Red Dot Chg Wt | Red Dot fps | Red Dot psi x1000 | American Select Chg Wt | American Select fps | American Select psi x1000 | Green Dot Chg Wt | Green Dot fps | Green Dot psi x1000 | Unique Chg Wt | Unique fps | Unique psi x1000 | Power Pistol Chg Wt | Power Pistol fps | Power Pistol psi x1000 | Herco Chg Wt | Herco fps | Herco psi x1000 | Blue Dot Chg Wt | Blue Dot fps | Blue Dot psi x1000 | 2400 Chg Wt | 2400 fps | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **.25 Auto** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 FMC | Rem. SP 1.5 | 0.875 | 2 | 1.3 | 760 | 15.0 | 1.1 | 740 | 15.5 | | | | 1.4 | 785 | 15.4 | 1.7 | 760 | 14.8 | | | | 1.7 | 735 | 15.6 | | | | | | |
| **.32 Auto** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 71 FMC | Rem. SP 1.5 | 0.984 | 4 | 2.2 | 835 | 12.5 | 2.1 | 805 | 12.9 | | | | 2.3 | 810 | 11.9 | 2.5 | 820 | 11.2 | | | | 3.2 | 880 | 13.5 | | | | | | |
| **.32 H&R Mag.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 85 JHP | Fed. 100 | 1.32 | 5 | 3.4 | 1,020 | 18.7 | 3.4 | 1,030 | 19.2 | | | | 3.5 | 1,035 | 19.5 | 4.1 | 1,050 | 18.7 | | | | 4.6 | 1,060 | 18.9 | 6.6 | 1,100 | 19.0 | | | |
| 90 LWC | Fed. 100 | 1.18 | 5 | 3.3 | 1,060 | 19.6 | 3.1 | 1,020 | 20.0 | | | | 3.3 | 1,050 | 20.4 | 3.7 | 1,110 | 20.3 | | | | 4.0 | 1,070 | 20.4 | 5.1 | 1,150 | 20.3 | 6.2 | 1,150 | 20.4 |
| 90 LWC (target) | Fed. 100 | 1.1 | 5 | 2.2 | 800 | 9.5 | 2.1 | 800 | 9.4 | | | | 2.2 | 805 | 9.6 | 2.5 | 800 | 8.4 | | | | 2.8 | 805 | 8.5 | 3.7 | 805 | 7.8 | | | |
| 98 LRN | Fed. 100 | 1.32 | 5 | 3.4 | 1,020 | 19.5 | 3.1 | 980 | 19.7 | | | | 3.5 | 1,010 | 19.6 | 4.0 | 1,000 | 19.0 | | | | | | | | | | | | |
| **9mm Luger** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 95 FMJ | Win. WSP | 1.055 | 4 | 5.5 | 1,295 | 31.4 | 5.3 | 1,285 | 32.1 | 6.0 | 1,280 | 32.2 | 5.5 | 1,240 | 25.5 | 6.5 | 1,308 | 31.4 | 7.8 | 1,445 | 32.9 | 6.8 | 1,225 | 24.4 | 8.3 | 1,180 | 22.0 | | | |
| 115 FMJ | Win. WSP | 1.12 | 4 | 5.0 | 1,180 | 31.0 | 4.5 | 1,150 | 32.6 | | | | 4.7 | 1,150 | 30.0 | 5.5 | 1,168 | 33.2 | 6.7 | 1,280 | 33.5 | 6.3 | 1,180 | 28.7 | 8.0 | 1,190 | 29.2 | | | |
| 115 JHP | Win. WSP | 1.14 | 4 | | | | | | | 5.2 | 1,135 | 32.8 | | | | | | | | | | | | | | | | | | |
| 125 FMJ | Win. WSP | 1.15 | 4 | 4.9 | 1,155 | 32.0 | 4.6 | 1,145 | 33.0 | 4.7 | 1,050 | 33.1 | 5.2 | 1,150 | 32.1 | 4.9 | 1,077 | 31.7 | 6.6 | 1,235 | 34.0 | 6.5 | 1,180 | 32.7 | 8.2 | 1,170 | 29.9 | | | |
| 125 L | Win. WSP | 1.15 | 4 | 4.9 | 1,165 | 32.1 | 4.5 | 1,145 | 32.0 | | | | 5.2 | 1,165 | 32.1 | 5.5 | 1,139 | 31.7 | | | | 6.2 | 1,165 | 28.5 | 8.2 | 1,190 | 29.7 | | | |
| 147 XTP | Win. WSP | 1.14 | 4 | 4.2 | 1,010 | 32.9 | 3.4 | 895 | 32.4 | 3.7 | 890 | 32.7 | 3.7 | 930 | 32.2 | 3.9 | 912 | 31.9 | 5.7 | 1,095 | 34.0 | 4.9 | 1,010 | 30.5 | 6.2 | 1,050 | 30.2 | | | |
| **9X18mm Markarov** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 95 JHP | Win. WSP | 0.965 | 4 | 3.6 | 970 | 21.2 | | | | | | | | | | | | | 4.7 | 1,010 | 21.6 | | | | | | | | | |
| 100 FPJ | Win. WSP | 0.965 | 4 | 3.6 | 960 | 21.1 | 3.1 | 905 | 21.3 | | | | 3.5 | 925 | 21.3 | | | | 4.7 | 995 | 21.4 | | | | | | | | | |
| 100 LRN | Win. WSP | 0.965 | 4 | 3.2 | 920 | 21.0 | 2.7 | 865 | 21.3 | | | | 3.2 | 910 | 21.6 | 4.3 | 985 | 20.9 | 4.2 | 950 | 21.6 | | | | | | | | | |
| **.357 Mag.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110 JHP | Fed. 200 | 1.56 | 5.6 | 9.0 | 1,690 | 31.7 | 7.7 | 1,560 | 34.0 | 7.8 | 1,520 | 32.7 | 10.0 | 1,660 | 31.3 | 10.0 | 1,735 | 34.1 | 9.7 | 1,690 | 34.0 | 13.0 | 1,885 | 33.3 | 16.0 | 2,040 | 33.8 | | | |
| 125 JSP | Fed. 200 | 1.57 | 5.6 | 8.4 | 1,550 | 32.8 | 7.0 | 1,410 | 34.0 | 7.4 | 1,400 | 33.2 | 7.3 | 1,415 | 33.6 | 9.6 | 1,585 | 33.8 | 9.2 | 1,555 | 33.5 | 9.8 | 1,590 | 33.6 | 14.5 | 1,795 | 34.0 | 17.0 | 1,730 | 32.7 |
| 148 LWC | Fed. 200 | 1.33 | 5.6 | 5.7 | 1,475 | 34.0 | 4.6 | 1,300 | 33.6 | | | | 5.1 | 1,310 | 34.0 | 6.4 | 1,465 | 33.8 | | | | 6.7 | 1,510 | 33.9 | | | | | | |
| 148 LWC (target) | Fed. 200 | 1.33 | 5.6 | 2.8 | 780 | 10.0 | 2.7 | 775 | 12.4 | 2.9 | 825 | 11.3 | 2.8 | 780 | 14.1 | 3.3 | 775 | 10.0 | | | | | | | | | | | | |
| 158 JSP | Fed. 200 | 1.575 | 5.6 | 6.8 | 1,250 | 33.1 | 6.0 | 1,160 | 33.4 | 5.7 | 1,130 | 32.9 | 7.0 | 1,215 | 34.0 | 7.8 | 1,280 | 33.2 | 8.0 | 1,305 | 33.8 | 8.2 | 1,305 | 34.0 | 10.7 | 1,420 | 33.3 | 14.0 | 1,295 | 32.5 |
| 158 LSWC | Fed. 200 | 1.58 | 5.6 | 6.5 | 1,320 | 33.9 | 5.5 | 1,215 | 34.0 | 6.0 | 1,210 | 32.8 | 6.0 | 1,240 | 34.0 | 6.8 | 1,295 | 33.9 | | | | 7.9 | 1,365 | 33.9 | | | | | | |
| 170 FMJ | Fed. 200 | 1.585 | 5.6 | 6.2 | 1,175 | 33.9 | 5.4 | 1,025 | 33.6 | 5.2 | 960 | 30.7 | 6.1 | 1,090 | 33.7 | 6.8 | 1,175 | 33.6 | 8.0 | 1,195 | 33.3 | 7.0 | 1,175 | 33.5 | 9.7 | 1,310 | 33.8 | 12.1 | 1,365 | 33.6 |
| 180 JFP | Fed. 200 | 1.58 | 5.6 | 6.3 | 1,135 | 34.0 | 5.3 | 930 | 33.2 | 4.9 | 850 | 32.7 | 6.0 | 1,010 | 34.0 | 7.0 | 1,125 | 33.8 | 7.0 | 1,145 | 33.8 | 7.2 | 1,110 | 34.0 | 9.7 | 1,260 | 33.3 | 12.5 | 1,300 | 32.7 |
| 200 LRN | Fed. 200 | 1.575 | 5.6 | 5.3 | 1,085 | 33.9 | 4.6 | 990 | 33.6 | | | | 5.0 | 1,015 | 34.0 | 6.0 | 1,105 | 33.9 | | | | 6.1 | 1,105 | 33.9 | 8.2 | 1,225 | 33.9 | 10.0 | 1,245 | 32.8 |
| **.38 Special** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 110 JHP | Fed. 100 | 1.43 | 5.6 | 4.5 | 1,085 | 14.9 | 4.0 | 1,000 | 15.8 | 4.4 | 1,015 | 15.5 | 4.6 | 1,050 | 16.0 | 5.6 | 1,090 | 15.4 | | | | 5.6 | 1,090 | 15.8 | 7.8 | 1,170 | 15.7 | | | |
| 125 JSP | Fed. 100 | 1.44 | 5.6 | 4.4 | 1,000 | 15.3 | 3.9 | 950 | 15.6 | 4.3 | 920 | 15.9 | 4.3 | 985 | 15.9 | 5.3 | 1,015 | 16.0 | | | | 5.5 | 1,040 | 16.0 | 7.3 | 1,035 | 15.6 | | | |
| 148 LWC | Fed. 100 | 1.18 | 5.6 | 2.8 | 815 | 15.9 | 2.5 | 750 | 15.5 | | | | 2.9 | 800 | 15.9 | 3.3 | 815 | 15.3 | | | | 3.5 | 820 | 16.0 | 5.3 | 810 | 13.6 | | | |
| 148 LWC (target) | Fed. 100 | 1.18 | 5.6 | 2.7 | 785 | 14.6 | 2.3 | 730 | 14.8 | 3.0 | 805 | 13.6 | 2.7 | 765 | 14.6 | 3.2 | 775 | 14.1 | | | | | | | | | | | | |
| 158 LSWC | Fed. 100 | 1.42 | 5.6 | 3.6 | 910 | 15.5 | 3.1 | 835 | 15.8 | | | | 3.5 | 870 | 15.6 | 4.3 | 920 | 16.0 | | | | 4.5 | 930 | 15.8 | 6.1 | 955 | 15.6 | | | |
| 158 LSWC | Rem. SP 1.5 | 1.42 | 5.6 | | | | | | | 4.3 | 950 | 16.9 | | | | | | | | | | | | | | | | | | |
| 160 JSP | Fed. 100 | 1.435 | 5.6 | 3.5 | 805 | 15.6 | 3.2 | 715 | 15.7 | | | | 3.4 | 750 | 15.8 | 4.2 | 800 | 15.6 | | | | 4.4 | 805 | 16.0 | 6.2 | 845 | 15.8 | | | |
| 200 LRN | Fed. 100 | 1.54 | 5.6 | 3.0 | 760 | 15.1 | 2.8 | 725 | 15.1 | | | | 3.1 | 750 | 15.5 | 3.6 | 780 | 15.7 | | | | 3.8 | 785 | 15.5 | 5.3 | 850 | 16.0 | | | |
| **.38 Special +P** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 90 JHP | Fed. 100 | 1.41 | 5.6 | 5.5 | 1,340 | 17.0 | 4.5 | 1,245 | 17.0 | | | | 5.1 | 1,260 | 16.9 | 6.3 | 1,300 | 16.8 | | | | 6.5 | 1,310 | 17.1 | 9.1 | 1,345 | 16.9 | | | |
| 110 JHP | Fed. 100 | 1.43 | 5.6 | 5.0 | 1,175 | 17.4 | 4.2 | 1,040 | 17.5 | | | | 4.8 | 1,100 | 17.4 | 5.9 | 1,160 | 17.5 | 6.5 | 1,200 | 17.1 | 5.9 | 1,150 | 17.5 | 8.2 | 1,205 | 16.8 | | | |
| 125 JSP | Fed. 100 | 1.445 | 5.6 | 4.8 | 1,090 | 17.5 | 4.1 | 965 | 17.0 | | | | 4.6 | 1,015 | 17.5 | 5.6 | 1,070 | 17.5 | 6.3 | 1,165 | 17.2 | 5.8 | 1,050 | 16.9 | 7.5 | 1,065 | 16.9 | | | |
| 158 LSWC | Fed. 100 | 1.42 | 5.6 | 3.8 | 945 | 17.2 | 3.2 | 855 | 16.8 | 4.3 | 950 | 16.9 | 3.7 | 910 | 17.2 | 4.5 | 950 | 17.1 | | | | 4.7 | 965 | 17.3 | 6.3 | 995 | 17.0 | | | |
| 160 JSP | Fed. 100 | 1.435 | 5.6 | 3.7 | 820 | 17.1 | 3.3 | 750 | 17.4 | | | | 3.6 | 770 | 17.3 | 4.4 | 885 | 17.1 | 4.9 | 880 | 17.3 | 4.6 | 835 | 17.2 | 6.3 | 905 | 17.4 | | | |
| 200 LRN | Fed. 100 | 1.54 | 5.6 | 3.3 | 795 | 17.1 | 2.9 | 750 | 17.0 | | | | 3.2 | 775 | 17.1 | 3.7 | 800 | 17.1 | | | | 4.0 | 825 | 17.0 | | | | 7.1 | 890 | 17.5 |

# Pistol and Revolver Loads

| Cartridge/Bullet | Primer | Min. OAL (inches) | Bbl Length | Bullseye Chg Wt | Bullseye fps | Bullseye psi x1000 | Red Dot Chg Wt | Red Dot fps | Red Dot psi x1000 | American Select Chg Wt | American Select fps | American Select psi x1000 | Green Dot Chg Wt | Green Dot fps | Green Dot psi x1000 | Unique Chg Wt | Unique fps | Unique psi x1000 | Power Pistol Chg Wt | Power Pistol fps | Power Pistol psi x1000 | Herco Chg Wt | Herco fps | Herco psi x1000 | Blue Dot Chg Wt | Blue Dot fps | Blue Dot psi x1000 | 2400 Chg Wt | 2400 fps | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **.38 Super Auto +P** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 115 JHP | Rem. SP 1.5 | 1.255 | 5 | 5.5 | 1,240 | 33.9 | 4.7 | 1,155 | 33.5 | | | | 5.7 | 1,225 | 33.8 | 6.6 | 1,265 | 33.8 | 7.3 | 1,345 | 34.4 | 6.8 | 1,260 | 34.0 | 10.2 | 1,360 | 33.0 | | | |
| 130 FMJ | Rem. SP 1.5 | 1.26 | 5 | 5.1 | 1,170 | 33.6 | 4.5 | 1,095 | 33.9 | | | | 5.2 | 1,135 | 33.6 | 6.2 | 1,200 | 34.0 | 6.8 | 1,255 | 34.6 | 6.3 | 1,180 | 33.5 | 9.1 | 1,265 | 32.5 | | | |
| 147 XTP | Rem. SP 1.5 | 1.275 | 5 | 5.0 | 1,095 | 34.0 | 4.5 | 1,035 | 34.0 | | | | 4.7 | 1,045 | 33.5 | 5.8 | 1,105 | 34.0 | 6.2 | 1,155 | 34.9 | 6.4 | 1,135 | 33.8 | 8.6 | 1,220 | 33.9 | 10.9 | 1,215 | 33.6 |
| 158 L | Rem. SP 1.5 | 1.275 | 5 | 4.6 | 1,030 | 33.6 | 4.0 | 985 | 34.0 | | | | 4.9 | 1,025 | 33.9 | 5.9 | 1,085 | 33.8 | | | | 6.0 | 1,080 | 33.1 | 8.3 | 1,190 | 33.9 | | | |
| **.357 Sig.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 90 JHP | Fed. 100 | 1.09 | 4 | 7.5 | 1,564 | 37.9 | 7.1 | 1,495 | 35.4 | 8.5 | 1,506 | 37.1 | 7.8 | 1,545 | 36.5 | 9.2 | 1,615 | 37.1 | 11.4 | 1,715 | 37.0 | 10.1 | 1,625 | 34.6 | 12.8 | 1,690 | 35.3 | | | |
| 115 JHP | Fed. 100 | 1.14 | 4 | 6.5 | 1,337 | 37.6 | 6.4 | 1,285 | 37.1 | 7.1 | 1,288 | 37.4 | 6.9 | 1,305 | 37.0 | 8.0 | 1,377 | 38.0 | 10.0 | 1,505 | 36.2 | 8.7 | 1,400 | 36.6 | 11.3 | 1,495 | 37.4 | | | |
| 124 TMJ | Fed. 100 | 1.12 | 4 | 7.0 | 1,325 | 37.0 | 6.0 | 1,215 | 37.2 | 7.0 | 1,219 | 37.1 | 6.5 | 1,255 | 36.8 | | | | | | | 8.3 | 1,345 | 37.6 | 10.6 | 1,405 | 36.9 | | | |
| 125 JHP | Fed. 100 | 1.14 | 4 | 6.1 | 1,244 | 37.0 | | | | | | | | | | 7.5 | 1,300 | 36.2 | 8.6 | 1,357 | 36.9 | | | | 10.5 | 1,375 | 36.7 | | | |
| 147 XTP | Fed. 100 | 1.138 | 4 | 5.1 | 1,078 | 35.3 | | | | 5.2 | 983 | 35.9 | 4.8 | 1,010 | 37.1 | 5.8 | 1,110 | 37.2 | 7.8 | 1,245 | 37.0 | 6.4 | 1,140 | 37.6 | 8.2 | 1,205 | 35.8 | | | |
| **.380 Auto** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 88 JHP | Win. WSP | 0.96 | 3.7 | 3.2 | 980 | 14.3 | 3.1 | 965 | 14.6 | 3.7 | 987 | 19.7 | 3.4 | 940 | 14.6 | 4.0 | 920 | 13.6 | | | | 4.1 | 995 | 14.9 | 6.0 | 1,000 | 14.7 | | | |
| 90 JHP | Win. WSP | 0.96 | 3.7 | 3.0 | 940 | 12.9 | 3.1 | 940 | 14.3 | | | | 3.2 | 890 | 12.8 | 4.0 | 940 | 14.0 | | | | 4.0 | 960 | 14.8 | 6.0 | 980 | 14.8 | | | |
| 90 XTP | Win. WSP | 0.96 | 3.7 | | | | | | | | | | | | | | | | 4.8 | 1,105 | 21.5 | | | | | | | | | |
| 95 FMJ | Win. WSP | 0.975 | 3.7 | 3.2 | 900 | 14.7 | 3.1 | 885 | 14.9 | | | | 3.5 | 890 | 14.7 | 4.2 | 910 | 14.6 | 4.7 | 1,065 | 21.0 | 4.4 | 910 | 14.6 | 6.5 | 910 | 14.2 | | | |
| 100 FMJ-RN | Win. WSP | 0.975 | 3.7 | 3.3 | 985 | 20.1 | 2.8 | 920 | 19.9 | | | | 3.1 | 955 | 20.0 | 4.3 | 1,005 | 19.5 | 4.6 | 1,035 | 20.6 | | | | | | | | | |
| **.38/40 Win.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 150 gr. Sierra JHP | Rem. 2.5 | 1.585 | 5.6 | 6.5 | 960 | 12.6 | 6.2 | 910 | 12.8 | | | | 6.8 | 950 | 12.7 | 8.2 | 990 | 13.2 | | | | 9.2 | 995 | 13.1 | 11.8 | 1,020 | 13.1 | 14.1 | 970 | 13.1 |
| 180 gr. Sierra JHP | Rem. 2.5 | 1.585 | 5.6 | 5.6 | 820 | 12.2 | 5.1 | 740 | 12.5 | | | | 5.6 | 745 | 12.7 | 6.9 | 815 | 13.2 | | | | 7.3 | 795 | 13.1 | 10.3 | 875 | 13.2 | 13.0 | 875 | 13.4 |
| 200 gr. Hornady FMJ/FP | Rem. 2.5 | 1.585 | 5.6 | 5.3 | 750 | 12.4 | 4.8 | 685 | 12.4 | | | | 5.5 | 730 | 12.5 | 6.7 | 765 | 13.1 | | | | 7.3 | 785 | 13.3 | 9.9 | 840 | 13.5 | 12.7 | 830 | 13.5 |
| **.40 S&W Auto** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 135 JHP | Win. WSP | 1.105 | 4 | 7.6 | 1,350 | 33.6 | 6.7 | 1,280 | 33.2 | | | | 7.5 | 1,330 | 33.1 | 8.5 | 1,290 | 26.6 | 9.3 | 1,340 | 34.0 | | | | | | | | | |
| 150 JHP | Win. WSP | 1.105 | 4 | 6.7 | 1,225 | 34.0 | 5.9 | 1,155 | 34.0 | 6.0 | 1,140 | 33.0 | 6.2 | 1,175 | 33.8 | 8.0 | 1,245 | 34.0 | 8.2 | 1,215 | 33.3 | 8.2 | 1,215 | 33.9 | 11.5 | 1,285 | 34.0 | | | |
| Laser Cast 155 Lead | Win. WSP | 1.125 | 4 | 4.9 | 1,051 | 33.1 | | | | 5.7 | 1,061 | 32.6 | | | | 6.5 | 1,064 | 32.2 | 7.0 | 1,115 | 32.3 | | | | | | | | | |
| 170 XTP | Win. WSP | 1.124 | 4 | 5.5 | 1,015 | 33.5 | 5.1 | 985 | 34.0 | 5.4 | 1,020 | 33.1 | 5.6 | 1,045 | 33.7 | 6.7 | 1,075 | 33.8 | 7.3 | 1,105 | 33.3 | 7.4 | 1,125 | 34.0 | 9.8 | 1,170 | 33.9 | 12.1 | 1,110 | 33.6 |
| 180 JHP | Win. WSP | 1.125 | 4 | 5.5 | 1,015 | 33.9 | 5.0 | 980 | 34.0 | 4.7 | 930 | 32.4 | 5.3 | 1,010 | 33.6 | 6.4 | 1,065 | 33.8 | 6.9 | 1,050 | 33.7 | 7.0 | 1,045 | 34.0 | 8.8 | 1,065 | 34.0 | 10.9 | 1,025 | 33.9 |
| Laser Cast 180 Lead | Win. WSP | 1.125 | 4 | 4.5 | 911 | 33.0 | | | | 5.0 | 912 | 33.2 | | | | 5.5 | 973 | 32.7 | 6.9 | 977 | 32.7 | | | | | | | | | |
| 190 JHP | Win. WSP | 1.13 | 4 | 5.4 | 955 | 34.0 | 4.9 | 895 | 33.6 | 4.7 | 895 | 32.0 | 5.1 | 955 | 33.6 | 6.1 | 1,010 | 34.0 | 6.9 | 1,020 | 33.1 | 6.7 | 1,000 | 33.8 | 8.7 | 1,040 | 33.8 | 10.6 | 975 | 33.6 |
| 200 FMJ | Win. WSP | 1.13 | 4 | 4.6 | 945 | 33.6 | 4.1 | 890 | 33.5 | 4.2 | 845 | 32.6 | 4.3 | 890 | 33.6 | 5.3 | 955 | 33.9 | 6.3 | 960 | 33.7 | 5.8 | 955 | 34.0 | 7.9 | 960 | 33.8 | 8.5 | 925 | 33.6 |
| **10mm Auto** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 135 JHP | Fed. 150 | 1.25 | 5.5 | | | | | | | | | | | | | | | | 10.6 | 1,530 | 35.6 | | | | | | | | | |
| 150 JHP | Fed. 150 | 1.25 | 5.5 | | | | | | | | | | | | | | | | 9.7 | 1,415 | 35.6 | | | | | | | | | |
| 155 HP | Fed. 150 | 1.25 | 5.5 | 6.7 | 1,190 | 34.0 | | | | | | | | | | 7.5 | 1,200 | 33.8 | | | | 8.2 | 1,230 | 33.8 | 11.5 | 1,340 | 34.1 | 13.6 | 1,270 | 33.6 |
| 155 L | Fed. 150 | 1.25 | 5.5 | | | | | | | | | | | | | | | | 9.5 | 1,320 | 33.0 | | | | | | | | | |
| 170 HP | Fed. 150 | 1.25 | 5.5 | 6.2 | 1,135 | 34.0 | | | | | | | | | | 6.9 | 1,135 | 34.1 | | | | 7.5 | 1,145 | 33.6 | 10.1 | 1,180 | 33.5 | 12.6 | 1,190 | 33.8 |
| 180 JHP | Fed. 150 | 1.25 | 5.5 | 6.4 | 1,125 | 35.9 | | | | | | | | | | 7.0 | 1,125 | 35.7 | 8.7 | 1,240 | 34.9 | 7.5 | 1,140 | 35.8 | 10.4 | 1,220 | 35.8 | 12.9 | 1,210 | 36.0 |
| 180 L | Fed. 150 | 1.25 | 5.5 | | | | | | | | | | | | | | | | 8.7 | 1,235 | 34.7 | | | | | | | | | |
| 190 JFP | Fed. 150 | 1.25 | 5.5 | 6.3 | 1,050 | 35.5 | | | | | | | | | | 6.7 | 1,025 | 35.5 | 8.2 | 1,200 | 35.9 | 7.2 | 1,050 | 35.8 | 10.0 | 1,185 | 36.0 | 12.5 | 1,195 | 35.8 |
| 200 FMJ | Fed. 150 | 1.26 | 5.5 | 5.3 | 940 | 33.6 | | | | | | | | | | 5.8 | 940 | 33.7 | 7.7 | 1,145 | 35.6 | 6.5 | 965 | 33.5 | 8.9 | 1,110 | 33.8 | 11.2 | 1,115 | 34.1 |
| **.41 Rem. Mag.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 200 HP | Rem. 2.5 | 1.58 | 5.8 | 8.0 | 1,235 | 35.7 | 7.5 | 1,200 | 33.4 | | | | 8.3 | 1,170 | 35.0 | 10.0 | 1,280 | 35.7 | | | | 10.1 | 1,320 | 35.9 | 14.0 | 1,470 | 36.0 | 17.5 | 1,420 | 34.7 |
| 210 JSP | Rem. 2.5 | 1.575 | 5.8 | 8.3 | 1,245 | 34.3 | 8.2 | 1,225 | 34.3 | | | | 8.7 | 1,165 | 35.8 | 10.1 | 1,265 | 35.4 | | | | 10.3 | 1,320 | 34.8 | 13.5 | 1,425 | 33.8 | 17.5 | 1,425 | 33.9 |
| 220 JHP | Rem. 2.5 | 1.575 | 5.8 | 7.5 | 1,150 | 35.8 | 7.4 | 1,125 | 35.9 | | | | 7.9 | 1,140 | 35.8 | 9.3 | 1,215 | 35.3 | | | | 9.3 | 1,220 | 35.8 | 12.5 | 1,365 | 35.8 | 16.4 | 1,365 | 34.3 |
| **.44/40 Win.** | | | | | | C.U.P. | | | C.U.P. | | | C.U.P. | | | C.U.P. | | | C.U.P. | | | C.U.P. | | | C.U.P. | | | C.U.P. | | | C.U.P. |
| 200 JSP | Rem. 2.5 | 1.59 | 24 | 6.6 | 1,070 | 12.3 | 5.9 | 920 | 12.4 | | | | 6.6 | 990 | 12.2 | 8.0 | 1,090 | 12.4 | | | | 8.5 | 1,100 | 12.5 | 12.0 | 1,225 | 12.5 | 14.5 | 1,230 | 12.5 |
| 240 L | Rem. 2.5 | 1.58 | 24 | 5.0 | 850 | 12.2 | 4.7 | 800 | 12.3 | | | | 5.5 | 850 | 12.2 | 6.7 | 950 | 12.5 | | | | 7.1 | 955 | 12.4 | 9.9 | 1,125 | 12.5 | 12.0 | 1,130 | 12.5 |
| **.44 Rem. Mag.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 180 JHC | Fed. 150 | 1.585 | 5.7 | 11.5 | 1,520 | 33.4 | 10.0 | 1,410 | 34.6 | 11.2 | 1,435 | 33.9 | 11.3 | 1,470 | 34.6 | 13.0 | 1,550 | 35.0 | 14.9 | 1,663 | 34.0 | 13.6 | 1,560 | 34.9 | 19.0 | 1,725 | 34.0 | 23.3 | 1,760 | 33.7 |
| 200 JHP | Fed. 150 | 1.575 | 5.7 | 11.0 | 1,420 | 34.0 | 9.7 | 1,320 | 34.8 | 10.6 | 1,320 | 34.1 | 10.7 | 1,370 | 34.5 | 13.0 | 1,475 | 34.4 | | | | 13.0 | 1,455 | 34.5 | 17.0 | 1,565 | 33.4 | 23.2 | 1,665 | 34.3 |
| 225 JHP | Fed. 150 | 1.575 | 5.7 | 9.5 | 1,270 | 34.6 | 8.2 | 1,185 | 34.6 | 9.1 | 1,165 | 33.4 | 9.2 | 1,220 | 34.7 | 10.7 | 1,290 | 34.8 | | | | 11.0 | 1,285 | 34.7 | 15.2 | 1,445 | 34.9 | 20.5 | 1,510 | 34.4 |
| 240 JSP | Fed. 150 | 1.585 | 5.7 | 8.9 | 1,215 | 34.7 | 7.7 | 1,090 | 35.0 | 8.6 | 1,100 | 34.2 | 8.7 | 1,190 | 35.0 | 10.3 | 1,250 | 34.9 | 13.5 | 1,400 | 31.9 | 10.5 | 1,245 | 34.7 | 14.4 | 1,380 | 34.8 | 18.7 | 1,440 | 34.8 |

# Pistol and Revolver Loads

| Cartridge/Bullet | Primer | Min. OAL (inches) | Bbl Length | Bullseye Chg Wt | Bullseye fps | Bullseye psi x1000 | Red Dot Chg Wt | Red Dot fps | Red Dot psi x1000 | American Select Chg Wt | American Select fps | American Select psi x1000 | Green Dot Chg Wt | Green Dot fps | Green Dot psi x1000 | Unique Chg Wt | Unique fps | Unique psi x1000 | Power Pistol Chg Wt | Power Pistol fps | Power Pistol psi x1000 | Herco Chg Wt | Herco fps | Herco psi x1000 | Blue Dot Chg Wt | Blue Dot fps | Blue Dot psi x1000 | 2400 Chg Wt | 2400 fps | 2400 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **.44 Rem. Mag.** (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 240 L (GC) | Fed. 150 | 1.6 | 5.7 | 9.8 | 1,175 | 34.4 | 8.8 | 1,175 | 34.9 | 9.2 | 1,180 | 33.8 | 9.5 | 1,170 | 34.8 | 11.8 | 1,255 | 35.0 | | | | 12.5 | 1,330 | 33.8 | 16.6 | 1,475 | 34.7 | 20.6 | 1,510 | 34.7 |
| Swift 240 HP | Win WLP | 1.62 | 5.7 | | | | | | | | | | | | | | | | | | | | | | | | 21.5 | 1,473 | 33.6 |
| 265 JFP | Fed. 150 | 1.62 | 5.7 | 8.3 | 1,110 | 34.8 | 7.1 | 1,000 | 34.8 | 8.3 | 1,025 | 34.2 | 7.8 | 1,045 | 35.0 | 9.3 | 1,125 | 34.6 | | | | 9.5 | 1,125 | 34.7 | 12.7 | 1,250 | 34.6 | 17.0 | 1,300 | 34.6 |
| Swift 280 HP | Win WLP | 1.68 | 5.7 | | | | | | | | | | | | | | | | | | | | | | | | 18.6 | 1,270 | 32.1 |
| 300 HP/XTP | Fed. 150 | 1.6 | 5.7 | 7.5 | 955 | 34.8 | 6.7 | 855 | 35.0 | 6.8 | 850 | 33.8 | 6.9 | 865 | 35.0 | 8.3 | 955 | 34.8 | 9.1 | 1,015 | 34.5 | 9.4 | 1,015 | 35.0 | 11.7 | 1,105 | 34.2 | 15.9 | 1,190 | 35.0 |
| Swift 300 HP | Win WLP | 1.69 | 5.7 | | | | | | | | | | | | | | | | | | | | | | | | 17.3 | 1,199 | 33.7 |
| 310 LSWC | Fed. 150 | 1.6 | 5.7 | 6.8 | 975 | 35.0 | 5.8 | 885 | 34.9 | | | | 6.2 | 895 | 34.6 | 7.2 | 965 | 34.8 | | | | 8.0 | 1,005 | 35.0 | 10.7 | 1,110 | 34.9 | 13.5 | 1,150 | 34.6 |
| **.44 S&W Special** | | | | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. |
| 180 JHC | Win WLP | 1.6 | 5.6 | 6.5 | 910 | 12.0 | 6.4 | 885 | 12.1 | 5.4 | 890 | 13.3 | 6.7 | 925 | 12.4 | 9.0 | 985 | 12.5 | | | | 9.8 | 1,000 | 12.6 | 13.5 | 1,020 | 11.9 | 16.0 | 950 | 11.4 |
| 240 LSWC | Win WLP | 1.59 | 5.6 | | | | | | | 4.7 | 800 | 13.1 | | | | | | | | | | | | | | | | | | |
| 246 LRN | Win WLP | 1.59 | 5.6 | 4.5 | 765 | 11.7 | 4.3 | 740 | 11.9 | | | | 5.0 | 785 | 11.9 | 6.0 | 800 | 11.7 | | | | 7.7 | 805 | 12.1 | 9.2 | 845 | 12.3 | 11.3 | 805 | 11.5 |
| **.45 ACP** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 155 Cast Lead | Fed. 150 | 1.27 | 5 | 6.9 | 1,175 | 19.4 | 5.8 | 1,155 | 18.8 | 6.0 | 1,125 | 19.3 | 6.6 | 1,165 | 19.3 | 7.8 | 1,190 | 19.2 | | | | 8.5 | 1,185 | 19.1 | | | | | | |
| 180 LWC | Fed. 150 | 1.19 | 5 | 5.4 | 985 | 15.8 | 4.8 | 900 | 14.1 | | | | 5.3 | 910 | 14.5 | 6.0 | 875 | 13.4 | | | | 6.7 | 950 | 15.8 | 9.0 | 920 | 13.6 | | | |
| 185 JHP | Fed. 150 | 1.23 | 5 | 6.7 | 995 | 19.4 | 5.9 | 940 | 19.5 | 5.9 | 975 | 19.8 | 6.8 | 990 | 19.3 | 8.2 | 1,030 | 18.9 | 8.6 | 1,025 | 18.8 | 8.2 | 990 | 18.5 | | | | | | |
| 185 LWC | Fed. 150 | 1.19 | 5 | | | | | | | 5.1 | 960 | 19.3 | | | | | | | | | | | | | | | | | | |
| 200 JHP | Fed. 150 | 1.23 | 5 | 6.0 | 960 | 19.4 | 5.2 | 890 | 19.2 | 5.4 | 900 | 19.9 | 5.9 | 915 | 18.9 | 7.1 | 975 | 19.5 | 7.4 | 965 | 19.9 | 7.7 | 955 | 19.3 | 10.6 | 1,000 | 19.5 | | | |
| 200 Lead SWC | Fed. 150 | 1.25 | 5 | | | | | | | 5.4 | 950 | 19.8 | | | | | | | | | | | | | | | | | | |
| 200 LSW (target) | Fed. 150 | 1.19 | 5 | 4.0 | 790 | 9.8 | 4.0 | 805 | 9.4 | 4.0 | 780 | 11.2 | 4.3 | 805 | 9.9 | 5.1 | 810 | 9.6 | | | | | | | | | | | | |
| 230 FMC | Fed. 150 | 1.19 | 5 | 5.0 | 905 | 16.2 | 5.0 | 910 | 16.2 | | | | 5.4 | 920 | 15.8 | 6.0 | 895 | 16.0 | 7.2 | 895 | 20.0 | 6.2 | 890 | 16.2 | 8.5 | 900 | 16.2 | | | |
| 230 JHP | Fed. 150 | 1.23 | 5 | 5.4 | 865 | 19.2 | 5.0 | 820 | 19.5 | 4.9 | 780 | 19.6 | 5.4 | 845 | 19.5 | 6.4 | 880 | 19.4 | | | | 7.0 | 875 | 19.5 | 9.8 | 915 | 19.3 | | | |
| 230 L (target) | Fed. 150 | 1.19 | 5 | 4.0 | 810 | 13.9 | 4.0 | 810 | 12.8 | 4.5 | 825 | 16.9 | 4.3 | 805 | 13.2 | 5.0 | 790 | 11.8 | | | | 5.2 | 815 | 13.6 | | | | | | |
| 240 JHC | Fed. 150 | 1.19 | 5 | | | | | | | | | | | | | | | | 6.5 | 835 | 19.9 | | | | | | | | | |
| 240 JHP | Fed. 150 | 1.21 | 5 | 5.0 | 810 | 18.9 | 4.5 | 770 | 19.2 | 4.7 | 775 | 19.5 | 5.0 | 790 | 19.3 | 5.9 | 820 | 19.2 | | | | 6.5 | 820 | 19.2 | 8.3 | 865 | 19.3 | | | |
| 260 JHP | Fed. 150 | 1.21 | 5 | 4.5 | 725 | 19.4 | | | | | | | | | | 5.4 | 760 | 19.4 | | | | 5.9 | 750 | 18.6 | 8.3 | 780 | 19.0 | | | |
| **.45 ACP+P** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 185 JHP | Fed. 150 | 1.23 | 5 | | | | | | | | | | | | | | | | 9.1 | 1,075 | 21.7 | | | | | | | | | |
| 200 JHP | Fed. 150 | 1.23 | 5 | | | | | | | | | | | | | | | | 8.2 | 1,030 | 22.2 | | | | | | | | | |
| 230 FMC | Fed. 150 | 1.19 | 5 | | | | | | | | | | | | | | | | 7.5 | 930 | 22.0 | | | | | | | | | |
| 240 JHC | Fed. 150 | 1.19 | 5 | | | | | | | | | | | | | | | | 7.1 | 890 | 22.2 | | | | | | | | | |
| **.45 Colt** | | | | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. | | | c.u.p. |
| 200 JMHP | Win WLP | 1.55 | 7.3 | 6.0 | 870 | 11.8 | 7.0 | 915 | 12.6 | | | | 8.0 | 940 | 12.5 | 9.0 | 895 | 11.6 | | | | 9.5 | 895 | 11.4 | 13.0 | 925 | 11.8 | | | |
| 230 LRN | Win WLP | 1.55 | 7.3 | | | | | | | 5.8 | 810 | 12.8 | | | | | | | | | | | | | | | | | | |
| 250L | Win WLP | 1.55 | 7.3 | 5.4 | 805 | 11.8 | 6.0 | 830 | 12.0 | 5.5 | 795 | 13.0 | 6.8 | 855 | 12.3 | 8.0 | 850 | 11.8 | | | | 9.0 | 910 | 12.6 | 11.5 | 890 | 12.2 | | | |
| 300 HP/XTP | Win WLP | 1.58 | 7.3 | 5.0 | 605 | 12.4 | 4.8 | 550 | 12.2 | | | | 5.7 | 645 | 12.5 | 6.8 | 690 | 12.6 | | | | 7.2 | 670 | 12.5 | 10.0 | 730 | 12.3 | 12.5 | 735 | 12.2 |
| **.454 Casull** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 300 gr XTP | Fed. 205M | 1.75 | 7.5 | | | | | | | | | | | | | | | | | | | | | | | | | 28.0 | 1,700 | 58.1 |
| Swift 300 HP | Fed. 205M | 1.8 | 7.5 | | | | | | | | | | | | | | | | | | | | | | | | | 28.9 | 1,720 | 60.0 |

## NOTES and KEY pertain to Pistol and Revolver tables.

1. Do not intermix cases of different manufacture, nor bullets, nor primers.
2. Be sure that each case is crackfree and completely empty.
3. Unless specifically recommended, use standard primers. Magnum primers are neither needed nor recommended for most calibers.
4. Do not exceed the powder weight shown, and guard against accidental multiple charges of powder.
5. Start with 10% less powder than shown. Work up gradually, watching for signs of high pressure.
6. Be sure that every completed cartridge is not shorter than the length listed.
7. Watch for signs of case head separation.

### KEY

BR = Bench Rest
FMC = Full Metal Case
FMJ = Full Metal Jacket
FN = Flat Nose
FP = Flat Point
FS = Fail Safe
GC = Gas Check
HB = Hollow Base
HC = Hollow Cavity
HP = Hollow Point
HC = Hollow Cavity
HP = Hollow Point
J = Jacketed
L = lead
M = Match
psi = Chamber pressure piezo system
PSP = Pointed Soft Point
RN = Round Nose
SB = Solid Base
SJ = Semi Jacketed
SP = Soft Point
Sp. Pt. = Spire Point
WC = Wad Cutter
Wt = Weight
Brl = Barrel
in. = Inches
gr. = Grains
Vel. = Velocity
fps = feet per second
c.w. = powder charge weight
c.u.p. = chamber pressure, in copper units
Min = minimum overall
OAL = length, measured form base to tip of bullet

# COWBOY ACTION

## Cowboy Action Load Data

| Caliber | Barrel Length | Bullet | Min. OAL (inches) | Powder | Min. Weight (grs) | Velocity (fps) | Max. Weight (grs) | Velocity (fps) |
|---|---|---|---|---|---|---|---|---|
| .38 Spec. | 6.5 | 125 gr Laser Cast TC | 1.45 | Bullseye | 2.8 | 690 | 4.8 | 1,024 |
| | | | | American Select | 3.2 | 675 | 4.7 | 989 |
| | | 125 gr Meister RNFP | 1.45 | Red Dot | 3.0 | 700 | 4.6 | 1,025 |
| | | | | Unique | 4.5 | 700 | 6.0 | 1,075 |
| | | 140 gr Hornady lead FP | 1.45 | Bullseye | 3.0 | 727 | 4.5 | 945 |
| | | | | Red Dot | 3.0 | 710 | 4.5 | 960 |
| | | | | American Select | 3.5 | 765 | 4.5 | 988 |
| | | | | Unique | 4.0 | 754 | 5.5 | 985 |
| .357 Mag. | 6.5 | 125 gr Laser Cast TC | 1.58 | American Select | 3.3 | 764 | 3.9 | 856 |
| | | 140 gr Hornady lead FP | 1.57 | American Select | 3.3 | 750 | 3.6 | 825 |
| | | | | Unique | 3.5 | 725 | 4.0 | 820 |
| | | 158 RN | 1.585 | American Select | 3.5 | 746 | 4.0 | 840 |
| | | | | Unique | 3.8 | 741 | 4.5 | 859 |
| .44 Spec. | 5.5 | 205 gr National RNFP lead | 1.445 | Bullseye | 4.5 | 793 | 5.0 | 843 |
| | | | | Red Dot | 4.5 | 793 | 5.5 | 910 |
| | | | | American Select | 5.5 | 877 | 6.0 | 935 |
| | | | | Unique | 6.0 | 835 | 7.0 | 953 |
| | | 240 SWC | 1.48 | Red Dot | 4.2 | 616 | 5.1 | 737 |
| | | | | American Select | 4.2 | 650 | 4.9 | 739 |
| | | | | Green Dot | 4.6 | 632 | 5.5 | 747 |
| | | | | Unique | 5.1 | 613 | 6.0 | 697 |
| 44/40 | 5.5 | 205 gr National RNFP lead | 1.592 | Red Dot | 5.8 | 792 | 6.3 | 879 |
| | | | | American Select | 6.2 | 810 | 6.5 | 852 |
| | | | | Green Dot | 6.3 | 797 | 6.7 | 867 |
| | | | | Unique | 8.0 | 930 | 8.5 | 990 |
| .44 Mag. | 5.5 | 205 gr National RNFP lead | 1.58 | Red Dot | 4.9 | 767 | 5.5 | 839 |
| | | | | American Select | 5.0 | 762 | 5.7 | 842 |
| | | | | Green Dot | 5.2 | 755 | 6.0 | 863 |
| | | | | Unique | 6.0 | 743 | 6.8 | 839 |
| | | 240gr Laser Cast RNFP | 1.595 | Red Dot | 4.8 | 723 | 5.6 | 814 |
| | | | | American Select | 5.1 | 742 | 6.0 | 832 |
| | | | | Unique | 6.0 | 750 | 7.0 | 860 |
| .45 Colt | 5.5 | 160gr Meister RNFP | 1.490 | Red Dot | 6.7 | 840 | 7.8 | 959 |
| | | | | American Select | 7.1 | 851 | 7.7 | 942 |
| | 5.5 | 180gr Meister RNFP | 1.518 | Red Dot | 5.9 | 743 | 7.6 | 917 |
| | | | | American Select | 6.0 | 750 | 7.2 | 876 |
| | 5.5 | 200 RNFP | 1.585 | Red Dot | 6.0 | 785 | 7.0 | 897 |
| | | | | American Select | 6.5 | 823 | 7.0 | 883 |
| | | | | Unique | 7.5 | 786 | 9.0 | 927 |
| | | 225 RNFP lead | 1.6 | Red Dot | 5.5 | 721 | 6.5 | 824 |
| | | | | American Select | 6.0 | 743 | 6.5 | 797 |
| | | | | Unique | 7.8 | 801 | 8.5 | 862 |
| | | 250 gr RNFP lead | 1.58 | Red Dot | 5.0 | 680 | 6.0 | 757 |
| | | | | American Select | 5.0 | 650 | 6.5 | 767 |
| | | | | Unique | 6.0 | 650 | 7.5 | 750 |
| 30-30 | 24 | 165 FP | 2.512 | Unique | 7.0 | 1,236 | | |
| | | | | Reloder 7 | 15.8 | 1,534 | | |
| 32-20 | 24 | 118 FP | 1.585 | Bullseye | | | 3.0 | 1,009 |
| | | | | Red Dot | | | 2.6 | 923 |
| 45/70 | 24 | 300 FP | 2.397 | Unique | 10.0 | 1,074 | 15.0 | 1,424 |
| | | | | Reloder 7 | 28.8 | 1,388 | | |
| | | 405 Laser Cast | 2.550 | Unique | 11 | 1,000 | | |

## Important Note:

Alliant Powder does not recommend the use of smokeless powder in any firearm designed for black powder.

# SILHOUETTE DATA

## Silhouette Loads

| Cartridge/Bullet | Primer | Min OAL (inches) | Blue Dot | | | 2400 | | | Reloder 7 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Charge Weight (grains) | Velocity (fps) | Chamber Pressure (copper units) | Charge Weight (grains) | Velocity (fps) | Chamber Pressure (copper units) | Charge Weight (grains) | Velocity (fps) | Chamber Pressure (copper units) |
| **.222 Rem.** | | | | | | | | | | | |
| (Rem. Case) | | | | | | | | | | | |
| 50 gr. Sierra Spitzer | Fed. 205M | 2.09 | | | | 12.9 | 2,425 | 43.8 | 19.3 | 2,700 | 43.8 |
| 53 inch gr. Sierra BRHP | Fed. 205M | 2.104 | | | | 12.4 | 2,345 | 43.8 | 18.2 | 2,575 | 43.5 |
| 55 gr. Sierra Spitzer | Fed. 205M | 2.125 | | | | 12.0 | 2,250 | 43.1 | 17.6 | 2,495 | 43.4 |
| 60 gr. Hornady Spire Pt. | Fed. 205M | 2.125 | | | | 12.0 | 2,180 | 43.8 | 17.0 | 2,400 | 43.8 |
| 68 gr. Hornady BTHP | Fed. 205M | 2.125 | | | | 11.3 | 1,990 | 43.8 | 16.5 | 2,230 | 43.2 |
| **.223 Rem.** | | | | | | | | | | | |
| (Rem. Case) | | | | | | | | | | | |
| 55 gr. Sierra Spitzer | Fed. 205M | 2.25 | | | | 15.9 | 2,430 | 48.5 | 22.1 | 2,670 | 48.9 |
| 60 gr. Hornady Spire Pt. | Fed. 205M | 2.25 | | | | 15.4 | 2,320 | 48.5 | 21.4 | 2,550 | 49.5 |
| **7mm BR Rem.** | | | | | | | | | | | |
| (Rem. Case) | | | | | | | | | | | |
| 120 gr. Sierra Spitzer | Rem. 7.5 BR | 2.3 | | | | 20.2 | 2,160 | 47.1 | 27.8 | 2,425 | 47.4 |
| 145 gr. Speer Spitzer | Rem. 7.5 BR | 2.3 | | | | 17.7 | 1,800 | 47.2 | 24.8 | 2,130 | 47.8 |
| **7mm/08** | | | | | | | | | | | |
| (Rem. Case) | | | | | | | | | | | |
| 120 gr. Sierra Spitzer | Fed. 210 BR | 2.75 | | | | 27.5 | 2,310 | 48.1 | 37.2 | 2,560 | 48.9 |
| 145 gr. Speer Spitzer | Fed. 210 BR | 2.75 | | | | 23.5 | 1,970 | 48.3 | 33.0 | 2,250 | 48.3 |
| **.30-30 Win.** | | | | | | | | | | | |
| (Fed. Case) | | | | | | | | | | | |
| 152 gr. Cast Lead | Fed. LR #210 | 2.5 | 13.0 | 1,525 | 29.0 | 16.0 | 1,650 | 33.3 | 25.0 | 1,950 | 34.9 |
| 170 gr. Rem. SPCL | Fed. LR #210 | 2.5 | | | | 16.0 | 1,500 | 34.7 | 23.5 | 1,800 | 34.9 |
| **.35 Rem.** | | | | | | | | | | | |
| (Rem. Case) | | | | | | | | | | | |
| 158 gr. Hornady L | Fed. LR #210 | 2.4 | 15.5 | 1,574 | 25.2 | 21.0 | 1,715 | 25.3 | 28.5 | 1,875 | 26.6 |
| 170 gr. Sierra FMJ | Fed. LR #210 | 2.4 | 13.0 | 1,300 | 22.4 | 17.0 | 1,450 | 23.4 | | | |
| 200 gr. Rem. SPCL | Fed. LR #210 | 2.51 | | | | 22.0 | 1,650 | 31.7 | 30.0 | 1,825 | 31.7 |
| **.357 Mag.** | | | | | | | | | | | |
| (Win. Case) | | | | | | | | | | | |
| 158 gr. Rem. SP | Fed. 200 | 1.58 | 12.0 | 1,600 | 42.9 | 14.6 | 1,640 | 42.3 | | | |
| 170 gr. Sierra FMJ | Fed. 200 | 1.58 | 10.7 | 1,445 | 41.7 | 13.2 | 1,450 | 43.0 | | | |
| 180 gr. Sierra FPJ | Fed. 200 | 1.58 | 9.2 | 1,250 | 42.4 | 12.1 | 1,350 | 41.7 | | | |
| 180 gr. Speer FMJ | Fed. 200 | 1.58 | 9.6 | 1,265 | 42.3 | 11.8 | 1,320 | 42.9 | | | |
| **.357 Maximum** | | | | | | | | | | | |
| (Rem. Case) | | | | | | | | | | | |
| 125 gr. Speer JHP | Rem. 7.5 BR | 1.9 | 15.0 | 1,860 | 38.2 | 20.5 | 2,045 | 38.2 | | | |
| 158 gr. Hornady HP | Rem. 7.5 BR | 1.975 | | | | 18.0 | 1,790 | 40.4 | 26.0 | 1,845 | 33.6 |
| 160 gr. Speer SP | Rem. 7.5 BR | 1.975 | 15.3 | 1,760 | 40.7 | 17.4 | 1,775 | 41.2 | 26.0 | 1,830 | 32.7 |
| 170 gr. Sierra FMJ | Rem. 7.5 BR | 1.975 | 14.5 | 1,675 | 41.3 | 16.5 | 1,670 | 40.5 | 25.5 | 1,840 | 40.1 |
| 180 gr. Sierra FPJ | Rem. 7.5 BR | 1.975 | 14.9 | 1,610 | 39.4 | 16.8 | 1,590 | 39.0 | 25.0 | 1,760 | 39.7 |
| 200 gr. Speer FMJ | Rem. 7.5 BR | 1.975 | 11.6 | 1,275 | 41.3 | 14.1 | 1,340 | 41.3 | 22.3 | 1,650 | 41.4 |
| **.44 Rem. Mag.** | | | | | | | | | | | |
| (Rem. Case) | | | | | | | | | | | |
| 180 gr. Sierra HC | Fed. 150 | 1.59 | 18.8 | 1,875 | 37.9 | 23.0 | 1,910 | 37.8 | | | |
| 240 gr. Speer FMJ | Fed. 150 | 1.59 | 15.5 | 1,550 | 37.6 | 18.8 | 1,560 | 36.8 | | | |
| 250 gr. Sierra FPJ | Fed. 150 | 1.59 | 15.0 | 1,525 | 36.8 | 19.0 | 1,600 | 37.8 | | | |
| 265 gr. Hornady FP | Fed. 150 | 1.59 | 14.1 | 1,420 | 36.3 | 17.4 | 1,460 | 37.4 | | | |

NOTE: Test barrels were 14 inches long, except 357 Maximum, which was 12 1/2 inches.

# CENTERFIRE RIFLE RELOADING DATA

## Centerfire Loads

| Cartridge/Bullet | Primer | Min. OAL (inches) | Case | Bbl Length | 2400 Chg Wt | 2400 fps | 2400 psi x1000 | Reloder 7 Chg Wt | Reloder 7 fps | Reloder 7 psi x1000 | Reloder 10X Chg Wt | Reloder 10X fps | Reloder 10X psi x1000 | Reloder 15 Chg Wt | Reloder 15 fps | Reloder 15 psi x1000 | Reloder 19 Chg Wt | Reloder 19 fps | Reloder 19 psi x1000 | Reloder 22 Chg Wt | Reloder 22 fps | Reloder 22 psi x1000 | Reloder 25 Chg Wt | Reloder 25 fps | Reloder 25 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **.17 Rem.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 25HP | Rem. 7.5 | 2.14 | Rem. | 24 | | | | | | | | | | 22.8 | 3,915 | 50.2 | | | | | | | | | |
| **.22 Hornet** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 40SP | Win. 6.5-116 | 1.71 | Win. | 24 | 7.5 | 2,250 | 41.0 | 11.0 | 2,265 | 19.8 | | | | | | | | | | | | | | | |
| Speer 45 Spitz | Win. 6.5-116 | 1.71 | Win. | 24 | 7.1 | 2,065 | 41.3 | 10.6 | 2,170 | 20.3 | | | | | | | | | | | | | | | |
| Hornady 50SPSX | Win. 6.5-116 | 1.71 | Win. | 24 | 7.0 | 1,945 | 41.7 | 10.5 | 2,115 | 21.5 | | | | | | | | | | | | | | | |
| **.220 Swift** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 45 Spitz | CCI 200 | 2.645 | Horn. | 24 | | | | | | | | | | 39.0 | 4,010 | 50.3 | | | | | | | | | |
| Hornady 50SPSX | CCI 200 | 2.66 | Horn. | 24 | | | | | | | | | | 38.6 | 3,850 | 49.8 | 44.0 | 3,650 | 50.4 | | | | | | |
| Hornady 55MJBT | CCI 200 | 2.63 | Horn. | 24 | | | | | | | | | | 38.0 | 3,775 | 50.5 | 43.9 | 3,610 | 50.5 | | | | | | |
| Hornady 60 Sp. Pt. | CCI 200 | 2.68 | Horn. | 24 | | | | | | | | | | 35.8 | 3,540 | 50.4 | 43.0 | 3,575 | 50.4 | 43.0 | 3,565 | 49.9 | | | |
| **.221 Rem. Fireball** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 40SP | Rem. 7.5 | 1.8 | Rem. | 10.5 | 15.5 | 2,700 | 46.5 | | | | | | | | | | | | | | | | | | |
| Sierra 50 Spitz | Rem. 7.5 | 1.825 | Rem. | 10.5 | 13.8 | 2,410 | 43.5 | | | | | | | | | | | | | | | | | | |
| Sierra 53BRHP | Rem. 7.5 | 1.825 | Rem. | 10.5 | 13.5 | 2,320 | 43.6 | | | | | | | | | | | | | | | | | | |
| Nosler 60 Spitz | Rem. 7.5 | 1.825 | Rem. | 10.5 | 13.3 | 2,200 | 46.3 | 18.1 | 2,250 | 34.0 | | | | | | | | | | | | | | | |
| **.222 Rem.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 40 SP | Rem. 6.5 | 2.04 | Rem. | 24 | | | | | | | 23.0 | 3,346 | 47.5 | | | | | | | | | | | | |
| Speer 45 SP | Rem. 6.5 | 2.07 | Rem. | 24 | | | | | | | 22.0 | 3,163 | 46.4 | | | | | | | | | | | | |
| Speer 45 Spitz | Rem. 7.5 BR | 2.09 | Rem. | 24 | | | | 19.8 | 3,225 | 47.5 | | | | | | | | | | | | | | | |
| Nosler 50 Ballistic Tip | Rem. 6.5 | 2.110 | Rem. | 24 | | | | | | | 21.0 | 3,023 | 47.0 | | | | | | | | | | | | |
| Sierra 50SMP | Rem. 7.5 BR | 2.13 | Rem. | 24 | | | | 20.0 | 3,115 | 47.4 | | | | | | | | | | | | | | | |
| Sierra 55FMJBT | Rem. 7.5 BR | 2.13 | Rem. | 24 | | | | | | | | | | 24.3 | 3,120 | 47.9 | | | | | | | | | |
| Hornady 60SPPT | Rem. 7.5 BR | 2.13 | Rem. | 24 | | | | | | | | | | 22.5 | 2,915 | 47.5 | | | | | | | | | |
| **.222 Rem. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 45 Spitz | Rem. 7.5 | 2.28 | Rem. | 24 | | | | 23.0 | 3,400 | 46.5 | | | | | | | | | | | | | | | |
| Sierra 50 Spitz | Rem. 7.5 | 2.28 | Rem. | 24 | | | | 22.5 | 3,250 | 45.4 | | | | | | | | | | | | | | | |
| Sierra 53BRHP | Rem. 7.5 | 2.28 | Rem. | 24 | | | | 22.0 | 3,120 | 44.5 | | | | | | | | | | | | | | | |
| Sierra 55 Spitz | Rem. 7.5 | 2.28 | Rem. | 24 | | | | 22.0 | 3,100 | 46.0 | | | | | | | | | | | | | | | |
| **.223 Rem.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nosler 40 Ballistic Tip | Win.WSR | 2.2 | Win. | 24 | | | | | | | 25.3 | 3,680 | 51.4 | | | | | | | | | | | | |
| Speer 45 SP | Rem. 6.5 | 2.2 | Win. | 24 | | | | | | | 24.5 | 3,502 | 51.8 | | | | | | | | | | | | |
| Speer 45 Spitz | Fed. 205M | 2.21 | Fed. | 24 | 14.9 | 3,030 | 49.6 | 21.8 | 3,375 | 53.2 | | | | 28.5 | 3,635 | 53.5 | | | | | | | | | |
| Hornady 50 V-Max Moly | Fed. 205M | 2.25 | Rem | 24 | | | | | | | | | | 28.0 | 3,356 | 49.0 | | | | | | | | | |
| Hornady 50SP | Win. WSR | 2.2 | Win. | 24 | 14.5 | 2,795 | 48.5 | | | | 23.6 | 3,195 | 53.0 | | | | | | | | | | | | |
| Nosler 50 Ballistic Tip | Win. WSR | 2.2 | Win. | 24 | | | | | | | 24.2 | 3,389 | 53.0 | 28.0 | 3,356 | 49.0 | | | | | | | | | |
| Sierra 52 HPBT | Rem. 6.5 | 2.25 | Win. | 24 | | | | | | | 23.3 | 3,165 | 53.3 | 28.3 | 3,440 | 53.1 | | | | | | | | | |
| Sierra 55 SP | Fed. 205M | 2.26 | Win. | 24 | | | | | | | | | | 27.3 | 3,259 | 51.4 | | | | | | | | | |
| Sierra 55 Spitz | Win WSR | 2.26 | Win. | 24 | | | | | | | 22.0 | 2,974 | 52.3 | | | | | | | | | | | | |
| Hornady 60SP | Win. WSR | 2.25 | Fed. | 24 | | | | | | | | | | 28.0 | 3,356 | 49.0 | | | | | | | | | |
| Sierra 69 HPBT | Fed. 205M | 2.26 | Win. | 24 | | | | | | | | | | 25.5 | 2,956 | 51.7 | | | | | | | | | |
| Hornady 75BTHP | Fed. 205M | 2.26 | Rem. | 24 | | | | | | | | | | 24.9 | 2,895 | 53.4 | | | | | | | | | |
| Sierra 77 HPBT | Fed. 205M | 2.26 | Win. | 24 | | | | | | | | | | 24.1 | 2,793 | 51.2 | | | | | | | | | |
| **.22/250 Rem.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nosler 40 Ballistic Tip | Rem. 9.5 | 2.38 | Rem. | 24 | | | | | | | 34.5 | 4,092 | 60.9 | | | | | | | | | | | | |

# Centerfire Loads

| Cartridge/Bullet | Primer | Min. OAL (inches) | Case | Bbl Length | 2400 Chg Wt | 2400 fps | 2400 psi x1000 | Reloder 7 Chg Wt | Reloder 7 fps | Reloder 7 psi x1000 | Reloder 10X Chg Wt | Reloder 10X fps | Reloder 10X psi x1000 | Reloder 15 Chg Wt | Reloder 15 fps | Reloder 15 psi x1000 | Reloder 19 Chg Wt | Reloder 19 fps | Reloder 19 psi x1000 | Reloder 22 Chg Wt | Reloder 22 fps | Reloder 22 psi x1000 | Reloder 25 Chg Wt | Reloder 25 fps | Reloder 25 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **.22/250 Rem. (continued)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 45 SP | Rem. 9.5 | 2.305 | Rem. | 24 | | | | | | | 33.5 | 3,876 | 60.3 | | | | | | | | | | | | |
| Hornady 50 SP | Rem. 9.5 | 2.35 | Rem. | 24 | | | | | | | 32.0 | 3,679 | 60.4 | | | | | | | | | | | | |
| Hornady 50 V-Max Moly | Win. WLR | 2.35 | Rem. | 24 | | | | | | | | | | 38.1 | 3,916 | 60.3 | | | | | | | | | |
| Sierra 50 SP | Rem. 9.5 | 2.35 | Rem. | 24 | | | | | | | 32.0 | 3,693 | 60.8 | | | | | | | | | | | | |
| Hornady 55 V-Max Moly | Win. WLR | 2.35 | Rem. | 24 | | | | | | | | | | 37.5 | 3,775 | 61.4 | 43.0 | 3,540 | 51.7 | | | | | | |
| Hornady 55SPSX | Win. WLR | 2.35 | Win. | 24 | | | | | | | | | | 35.3 | 3,625 | 59.4 | | | | | | | | | |
| Hornady 60SP | Win. WLR | 2.35 | Win. | 24 | | | | | | | | | | 34.7 | 3,485 | 59.4 | 41.0 | 3,510 | 57.8 | | | | | | |
| **.243 Win.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 60HP | Win. WLR | 2.55 | Win. | 24 | | | | 30.2 | 3,320 | 54.8 | | | | | | | | | | | | | | | |
| Speer 80 Spitz | Win. WLR | 2.685 | Win. | 24 | | | | | | | | | | 36.5 | 3,145 | 57.5 | 44.5 | 3,270 | 57.5 | | | | | | |
| Sierra 100 Spitz BT | Win. WLR | 2.7 | Win. | 24 | | | | | | | | | | | | | 41.0 | 2,925 | 57.1 | 41.7 | 2,950 | 57.5 | | | |
| **6mm BR** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 60HP | Rem. 7.5 | 2.075 | Rem. | 24 | | | | | | | 30.0 | 3,369 | 45.3 | | | | | | | | | | | | |
| Hornady 70 SP | Rem. 7.5 | 2.145 | Rem. | 24 | | | | | | | 29.5 | 3,206 | 45.9 | | | | | | | | | | | | |
| Sierra 75 HP | Rem. 7.5 | 2.125 | Rem. | 24 | | | | | | | 28.5 | 3,100 | 46.4 | | | | | | | | | | | | |
| Speer 80 SP | Rem. 7.5 | 2.160 | Rem. | 24 | | | | | | | 28.5 | 3,023 | 45.3 | | | | | | | | | | | | |
| **6mm Rem.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 60HP | Rem. 9.5 | 2.76 | Rem. | 24 | | | | | | | | | | 43.6 | 3,820 | 62.7 | | | | | | | | | |
| Speer 75HP | Rem. 9.5 | 2.79 | Rem. | 24 | | | | | | | | | | 40.6 | 3,410 | 62.3 | | | | | | | | | |
| Speer 80 Spitz | Rem. 9.5 | 2.79 | Rem. | 24 | | | | | | | | | | 40.5 | 3,340 | 63.0 | 49.5 | 3,435 | 61.7 | 51.5 | 3,450 | 60.9 | | | |
| Sierra 100 Spitz BT | Rem. 9.5 | 2.8 | Rem. | 24 | | | | | | | | | | | | | 46.0 | 3,145 | 62.5 | 48.0 | 3,205 | 62.5 | | | |
| **.250 Savage** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 75HP | Rem. 9.5 | 2.4 | Rem. | 24 | | | | | | | | | | 38.3 | 3,350 | 43.7 | | | | | | | | | |
| Speer 87 Spitz | Rem. 9.5 | 2.45 | Rem. | 24 | | | | | | | | | | 36.0 | 3,135 | 43.8 | 41.0 | 2,940 | 42.8 | | | | | | |
| Speer 100 Spitz | Rem. 9.5 | 2.5 | Rem. | 24 | | | | | | | | | | | | | 40.0 | 2,855 | 43.4 | | | | | | |
| Sierra 120HPBT | Rem. 9.5 | 2.51 | Rem. | 24 | | | | | | | | | | | | | | | | 40.0 | 2,680 | 43.6 | | | |
| **.25-06 Rem.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 87 Spitz | Fed. 210 | 3.09 | Fed. | 24 | | | | | | | | | | 47.2 | 3,425 | 61.0 | 57.3 | 3,525 | 59.8 | | | | | | |
| Speer 100 Spitz | Fed. 210 | 3.2 | Fed. | 24 | | | | | | | | | | 44.9 | 3,190 | 61.0 | 54.3 | 3,320 | 61.0 | 55.9 | 3,355 | 61.1 | | | |
| Sierra 120HPBT | Fed. 210 | 3.225 | Fed. | 24 | | | | | | | | | | | | | 50.5 | 3,025 | 60.4 | 52.5 | 3,080 | 60.4 | | | |
| **.25/20 Win.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rem. 86SP | CCI 400 | 1.59 | Rem. | 24 | 8.0 | 1,340 | 18.3 | 11.5 | 1,460 | 15.0 | | | | | | | | | | | | | | | |
| **.257 Roberts** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 75HP | Win. WLR | 2.775 | Win. | 24 | | | | | | | | | | 41.8 | 3,340 | 42.7 | | | | | | | | | |
| Speer 87 Spitz | Win. WLR | 2.775 | Win. | 24 | | | | | | | | | | 41.0 | 3,185 | 43.2 | | | | | | | | | |
| Speer 100 Spitz | Win. WLR | 2.775 | Win. | 24 | | | | | | | | | | | | | 44.7 | 2,930 | 43.1 | | | | | | |
| Sierra 120HPBT | Win. WLR | 2.775 | Win. | 24 | | | | | | | | | | | | | | | | 44.0 | 2,785 | 43.0 | | | |
| **.257 Roberts +P** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 75HP | Win. WLR | 2.775 | Win. | 24 | | | | | | | | | | 43.4 | 3,510 | 48.0 | | | | | | | | | |
| Speer 87 Spitz | Win. WLR | 2.775 | Win. | 24 | | | | | | | | | | 43.5 | 3,310 | 48.0 | | | | | | | | | |
| Speer 100 Spitz | Win. WLR | 2.775 | Win. | 24 | | | | | | | | | | | | | 47.2 | 3,110 | 47.9 | | | | | | |
| Sierra 120 HPBT | Win. WLR | 2.775 | Win. | 24 | | | | | | | | | | | | | | | | 46.5 | 2,945 | 48.0 | | | |
| **.257 Wby. Mag** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 75HP | Fed. 215 | 3.075 | Wby. | 26 | | | | | | | | | | | | | 73.3 | 3,895 | 52.9 | 77.0 | 3,900 | 53.0 | | | |
| Speer 87 Spitz | Fed. 215 | 3.15 | Wby. | 26 | | | | | | | | | | | | | 68.4 | 3,650 | 53.0 | 73.0 | 3,675 | 52.7 | | | |
| Speer 100 Spitz | Fed. 215 | 3.17 | Wby. | 26 | | | | | | | | | | | | | 64.5 | 3,420 | 52.7 | 69.0 | 3,460 | 52.4 | | | |
| Barnes 115 Spitz | Fed. 215 | 3.17 | Wby. | 26 | | | | | | | | | | | | | 61.3 | 3,175 | 53.0 | 64.5 | 3,200 | 52.7 | | | |

# Centerfire Loads

| Cartridge/Bullet | Primer | Min. OAL (inches) | Case | Bbl Length | 2400 Chg Wt | 2400 fps | 2400 psi x1000 | Reloder 7 Chg Wt | Reloder 7 fps | Reloder 7 psi x1000 | Reloder 10X Chg Wt | Reloder 10X fps | Reloder 10X psi x1000 | Reloder 15 Chg Wt | Reloder 15 fps | Reloder 15 psi x1000 | Reloder 19 Chg Wt | Reloder 19 fps | Reloder 19 psi x1000 | Reloder 22 Chg Wt | Reloder 22 fps | Reloder 22 psi x1000 | Reloder 25 Chg Wt | Reloder 25 fps | Reloder 25 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **.257 Wby. Mag (continued)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nosler 120 SP | Fed. 215 | 3.17 | Wby. | 26 | | | | | | | | | | | | | 59.7 | 3,100 | 53.0 | 62.7 | 3,140 | 52.9 | | | |
| **.260 Rem.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 85 HP | Rem. 9.5 | 2.71 | Rem | 22 | | | | | | | | | | 44.5 | 3,285 | 59.6 | 49.2 | 3,200 | 60.2 | | | | | | |
| Sierra 100 HP | Rem. 9.5 | 2.71 | Rem | 22 | | | | | | | | | | 43.0 | 3,168 | 58.8 | 49.0 | 3,180 | 58.7 | | | | | | |
| Hornady 129 SP | Rem. 9.5 | 2.75 | Rem | 22 | | | | | | | | | | 39.0 | 2,740 | 61.1 | 46.0 | 2,890 | 61.5 | | | | | | |
| Sierra 140 SBT | Rem. 9.5 | 2.75 | Rem | 22 | | | | | | | | | | 38.0 | 2,610 | 60.8 | 44.8 | 2,690 | 60.7 | | | | | | |
| **.264 Win. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 129 Sp. Pt. | Win. WLR | 3.27 | Win. | 24 | | | | | | | | | | | | | 57.0 | 3,070 | 51.8 | | | | | | |
| Speer 140 Spitz | Win. WLR | 3.34 | Win. | 24 | | | | | | | | | | | | | 56.0 | 2,945 | 51.8 | 57.0 | 2,960 | 51.3 | | | |
| Hornady 160RN | Win. WLR | 3.315 | Win. | 24 | | | | | | | | | | | | | | | | 57.0 | 2,780 | 51.8 | | | |
| **6.5X55 Swedish Mauser** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 129SP | CCI 200 | 2.935 | Norma | 24 | | | | 25.8 | 2,130 | 43.6 | | | | 38.8 | 2,620 | 44.4 | 48.0 | 2,815 | 44.5 | | | | | | |
| Speer 140 Spitz | CCI 200 | 3 | Norma | 24 | | | | | | | | | | 36.6 | 2,480 | 44.2 | 46.0 | 2,650 | 44.0 | 48.1 | 2,700 | 44.4 | | | |
| Hornady 160RN | CCI 200 | 2.975 | Norma | 24 | | | | 25.0 | 1,940 | 44.0 | | | | 35.6 | 2,325 | 44.0 | 45.0 | 2,500 | 44.3 | 47.0 | 2,535 | 44.0 | | | |
| **.270 Wby. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 100 Spitz | Fed. 215 | 3.16 | Wby. | 26 | | | | | | | | | | | | | 76.8 | 3,755 | 53.4 | 79.0 | 3,775 | 53.0 | | | |
| Speer 130 Spitz | Fed. 215 | 3.26 | Wby. | 26 | | | | | | | | | | | | | 70.5 | 3,340 | 53.5 | 73.8 | 3,400 | 53.5 | | | |
| Sierra 140 SBT | Fed. 215 | 3.275 | Wby. | 26 | | | | | | | | | | | | | 68.1 | 3,240 | 53.5 | 71.0 | 3,280 | 53.5 | | | |
| Nosler 150 Spitz | Fed. 215 | 3.285 | Wby. | 26 | | | | | | | | | | | | | 64.8 | 3,090 | 53.2 | 69.7 | 3,180 | 53.5 | | | |
| Sierra 150 SBT | Fed. 215 | 3.285 | Wby. | 26 | | | | | | | | | | | | | 64.4 | 3,075 | 53.5 | 68.8 | 3,145 | 53.5 | | | |
| **.270 Win.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 100 Spitz | Win. WLR | 3.15 | Win. | 24 | | | | | | | | | | 53.8 | 3,465 | 62.0 | 64.0 | 3,510 | 61.8 | | | | | | |
| Speer 130 Spitz | Win. WLR | 3.25 | Win. | 24 | | | | | | | | | | 47.3 | 2,840 | 61.6 | 57.5 | 3,110 | 61.6 | 60.0 | 3,160 | 61.5 | | | |
| Sierra 140SBT | Win. WLR | 3.28 | Win. | 24 | | | | | | | | | | 47.0 | 2,770 | 61.6 | 57.0 | 2,910 | 61.5 | 60.0 | 2,930 | 59.4 | | | |
| Nosler 150 Spitz | Win. WLR | 3.325 | Win. | 24 | | | | | | | | | | | | | 56.5 | 2,810 | 61.8 | 59.5 | 2,845 | 60.3 | | | |
| Sierra 150 Spitz BT | Win. WLR | 3.32 | Win. | 24 | | | | | | | | | | | | | 55.5 | 2,945 | 61.4 | 58.5 | 3,010 | 61.8 | | | |
| **.280 Rem.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 120SP | Rem. 9.5 | 3.31 | Rem. | 24 | | | | | | | | | | 48.0 | 3,065 | 57.2 | 58.0 | 3,115 | 57.6 | | | | | | |
| Hornady 139 Sp. Pt. | Rem. 9.5 | 3.32 | Rem. | 24 | | | | | | | | | | 46.5 | 2,860 | 57.7 | 57.0 | 2,970 | 58.0 | 59.5 | 3,000 | 57.5 | | | |
| Speer 145 Spitz | Rem. 9.5 | 3.32 | Rem. | 24 | | | | | | | | | | 43.0 | 2,630 | 57.1 | 53.0 | 2,815 | 57.8 | 56.0 | 2,865 | 58.0 | | | |
| Sierra 160 Spitz BT | Rem. 9.5 | 3.325 | Rem. | 24 | | | | | | | | | | | | | 53.4 | 2,750 | 58.1 | 55.7 | 2,795 | 58.0 | | | |
| **.284 Win.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 120 SP | Win. WLR | 2.8 | Win. | 24 | | | | | | | | | | 51.5 | 3,235 | 54.3 | 60.5 | 3,265 | 53.6 | | | | | | |
| Hornady 139SP | Win. WLR | 2.795 | Win. | 24 | | | | | | | | | | 48.0 | 2,975 | 54.7 | 57.0 | 3,075 | 53.5 | 58.5 | 3,030 | 49.0 | | | |
| Speer 145 Spitz | Win. WLR | 2.795 | Win. | 24 | | | | | | | | | | 46.7 | 2,855 | 55.1 | 55.0 | 2,940 | 52.4 | 55.0 | 2,900 | 49.2 | | | |
| Nosler 150 Part. | Win. WLR | 2.79 | Win. | 24 | | | | | | | | | | | | | 55.0 | 2,940 | 53.5 | 55.0 | 2,840 | 46.3 | | | |
| Sierra 160 Spitz BT | Win. WLR | 2.8 | Win. | 24 | | | | | | | | | | | | | 54.0 | 2,885 | 54.6 | 52.0 | 2,680 | 42.7 | | | |
| **7-30 Waters** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 120 Sp. Pt. | Fed. 210 | 2.64 | Fed. | 24 | | | | 27.3 | 2,470 | 38.6 | | | | 36.3 | 2,725 | 39.0 | | | | | | | | | |
| Hornady 139 F.P. | Fed. 210 | 2.65 | Fed. | 24 | | | | | | | | | | 34.7 | 2,540 | 38.8 | | | | | | | | | |
| **7mm Rem. Mag.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 120 Sp. Pt. | Rem. 9.5 | 3.275 | Fed. | 24 | | | | | | | | | | 55.0 | 3,200 | 58.3 | 69.0 | 3,465 | 58.6 | 73.0 | 3,490 | 58.6 | | | |
| Hornady 139 Sp. Pt. | Rem. 9.5 | 3.275 | Fed. | 24 | | | | | | | | | | 55.6 | 3,070 | 59.0 | 67.5 | 3,260 | 58.1 | 70.0 | 3,295 | 58.0 | | | |
| Speer 145 Spitz | Rem. 9.5 | 3.28 | Fed. | 24 | | | | | | | | | | 47.5 | 2,780 | 58.7 | 61.7 | 3,090 | 58.4 | 64.5 | 3,150 | 58.6 | | | |
| Nosler 160 Partition | Fed. 215 | 3.285 | Rem | 24 | | | | | | | | | | | | | | | | | | | 68.0 | 3,028 | 58.0 |
| Sierra 160 Spitz BT | Rem. 9.5 | 3.285 | Fed. | 24 | | | | | | | | | | | | | 62.0 | 3,020 | 58.5 | 65.0 | 3,075 | 58.6 | | | |
| Swift 160gr A Frame | Fed. 215 | 3.29 | Rem | 24 | | | | | | | | | | | | | | | | | | | 70.0 | 3,049 | 59.1 |
| Nosler 175 Partition | Fed. 215 | 3.285 | Rem | 24 | | | | | | | | | | | | | | | | | | | 65.8 | 2,873 | 58.1 |

# Centerfire Loads

| Cartridge/Bullet | Primer | Min. OAL (inches) | Case | Bbl Length | 2400 Chg Wt | 2400 fps | 2400 psi x1000 | Reloder 7 Chg Wt | Reloder 7 fps | Reloder 7 psi x1000 | Reloder 10X Chg Wt | Reloder 10X fps | Reloder 10X psi x1000 | Reloder 15 Chg Wt | Reloder 15 fps | Reloder 15 psi x1000 | Reloder 19 Chg Wt | Reloder 19 fps | Reloder 19 psi x1000 | Reloder 22 Chg Wt | Reloder 22 fps | Reloder 22 psi x1000 | Reloder 25 Chg Wt | Reloder 25 fps | Reloder 25 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **7mm Rem. Mag. (continued)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 175 Spitz BT | Fed. 215 | 3.285 | Rem. | 24 | | | | | | | | | | | | | | | | 61.3 | 2,900 | 58.4 | 68.4 | 2,934 | 58.0 |
| Swift 175 A Frame | Fed. 215 | 3.255 | Rem | 24 | | | | | | | | | | | | | | | | | | | 65.8 | 2,837 | 56.8 |
| **7mm STW** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 150 SBT | Fed. 215 | 3.59 | Rem | 26 | | | | | | | | | | | | | | | | 80.0 | 3,300 | 59.0 | | | |
| Nosler 160 Partition | Fed. 215 | 3.6 | Rem | 26 | | | | | | | | | | | | | | | | | | | 79.0 | 3,300 | 62.3 |
| Swift 160gr A Frame | Fed. 215 | 3.55 | Rem | 26 | | | | | | | | | | | | | | | | | | | 80.0 | 3,300 | 62.2 |
| Nosler 175 Partition | Fed. 215 | 3.6 | Remington | 26 | | | | | | | | | | | | | | | | | | | 78.0 | 3,131 | 63.7 |
| Swift 175 A Frame | Fed. 215 | 3.555 | Remington | 26 | | | | | | | | | | | | | | | | | | | 78.0 | 3,119 | 63.0 |
| **7mm Wby. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 120 Sp. Pt. | Fed. 215 | 3.2 | Wby. | 26 | | | | | | | | | | 61.3 | 3,370 | 52.5 | 74.0 | 3,505 | 52.1 | | | | | | |
| Hornady 139 Sp. Pt. | Fed. 215 | 3.28 | Wby. | 26 | | | | | | | | | | | | | 70.9 | 3,315 | 52.5 | 74.8 | 3,355 | 52.3 | | | |
| Speer 145 Spitz | Fed. 215 | 3.24 | Wby. | 26 | | | | | | | | | | | | | 68.0 | 3,165 | 52.2 | 72.4 | 3,245 | 52.5 | | | |
| Nosler 150 Spitz | Fed. 215 | 3.25 | Wby. | 26 | | | | | | | | | | | | | 67.3 | 3,145 | 52.5 | 72.0 | 3,220 | 52.4 | | | |
| Sierra 160 Spitz | Fed. 215 | 3.24 | Wby. | 26 | | | | | | | | | | | | | 64.8 | 3,045 | 52.3 | 70.7 | 3,110 | 52.5 | | | |
| Sierra 175 Spitz | Fed. 215 | 3.245 | Wby. | 26 | | | | | | | | | | | | | 60.5 | 2,850 | 52.2 | 67.4 | 2,965 | 52.5 | | | |
| **7mm-08 Rem.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 120 Sp. Pt. | Rem. 9.5 | 2.75 | Rem. | 24 | | | | 35.5 | 2,775 | 57.2 | | | | 45.5 | 3,070 | 58.7 | | | | | | | | | |
| Hornady 139 Sp. Pt. | Rem. 9.5 | 2.8 | Rem. | 24 | | | | 34.0 | 2,555 | 57.3 | | | | 43.0 | 2,830 | 59.0 | 52.0 | 2,850 | 57.9 | | | | | | |
| Speer 145 Spitz | Rem. 9.5 | 2.8 | Rem. | 24 | | | | 31.8 | 2,405 | 57.5 | | | | 41.0 | 2,700 | 59.0 | 49.3 | 2,785 | 58.9 | | | | | | |
| Sierra 150 HPBT | Rem. 9.5 | 2.8 | Rem. | 24 | | | | 32.3 | 2,410 | 57.3 | | | | 40.9 | 2,685 | 58.6 | 49.0 | 2,760 | 58.7 | | | | | | |
| Sierra 160 Spitz BT | Rem. 9.5 | 2.8 | Rem. | 24 | | | | | | | | | | 40.5 | 2,620 | 59.0 | 48.5 | 2,675 | 56.4 | | | | | | |
| **7X57 Mauser** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 120 Sp. Pt. | Fed. 210 | 2.965 | Fed. | 24 | | | | | | | | | | 45.0 | 2,995 | 48.9 | 54.0 | 3,030 | 48.0 | | | | | | |
| Hornady 139 Sp. Pt. | Fed. 210 | 3.015 | Fed. | 24 | | | | | | | | | | 41.5 | 2,700 | 48.4 | 51.8 | 2,835 | 49.0 | 53.0 | 2,790 | 45.6 | | | |
| Speer 145 Spitz | Fed. 210 | 3.04 | Fed. | 24 | | | | | | | | | | 38.5 | 2,550 | 48.5 | 47.3 | 2,680 | 48.8 | 48.8 | 2,720 | 49.0 | | | |
| Sierra 160 Spitz BT | Fed. 210 | 3.04 | Fed. | 24 | | | | | | | | | | | | | 49.0 | 2,665 | 45.5 | 50.0 | 2,690 | 48.3 | | | |
| **.30 Carbine** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 100SJ | CCI 400 | 1.625 | Fed. | 20 | 12.3 | 1,815 | 34.5 | | | | | | | | | | | | | | | | | | |
| Cast (GC) 112L | CCI 400 | 1.625 | Fed. | 20 | 10.3 | 1,590 | 35.7 | | | | | | | | | | | | | | | | | | |
| **.300 H&H Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 150 Sp. Pt. | Fed. 210 | 3.57 | Fed. | 24 | | | | | | | | | | 63.8 | 3,270 | 52.5 | 75.0 | 3,275 | 52.5 | | | | | | |
| Speer 165 Spitz | Fed. 210 | 3.555 | Fed. | 24 | | | | | | | | | | 60.9 | 3,065 | 52.5 | 72.7 | 3,150 | 52.5 | | | | | | |
| Nosler 180 Part. | Fed. 210 | 3.535 | Fed. | 24 | | | | | | | | | | 58.0 | 2,910 | 52.3 | 70.3 | 3,040 | 52.5 | 71.0 | 3,040 | 52.1 | | | |
| Speer 180 Spitz | Fed. 210 | 3.575 | Fed. | 24 | | | | | | | | | | 56.7 | 2,850 | 52.4 | 69.8 | 3,055 | 52.5 | 71.5 | 3,070 | 52.0 | | | |
| Sierra 200 Spitz BT | Fed. 210 | 3.59 | Fed. | 24 | | | | | | | | | | 55.0 | 2,725 | 52.1 | 67.0 | 2,910 | 52.1 | 69.0 | 2,935 | 52.2 | | | |
| **.300 Rem Ultra Mag** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 150 Spitz | Fed. 215 | 3.57 | Rem | 26 | | | | | | | | | | | | | | | | 94.0 | 3,440 | 63.7 | | | |
| Nosler 165 Part. | Fed. 215 | 3.5 | Rem | 26 | | | | | | | | | | | | | | | | 93.5 | 3,320 | 61.5 | | | |
| Swift 165 A Frame | Fed. 215 | 3.59 | Rem | 26 | | | | | | | | | | | | | | | | | | | 98.0 | 3,400 | 63.5 |
| Barnes 180 gr X | Fed. 215 | 3.6 | Rem | 26 | | | | | | | | | | | | | | | | | | | 87.9 | 3,110 | 61.5 |
| Nosler 180 Part. | Fed. 215 | 3.6 | Rem | 26 | | | | | | | | | | | | | | | | 90.0 | 3,165 | 60.8 | | | |
| Swift 180 A Frame | Fed. 215 | 3.53 | Rem | 26 | | | | | | | | | | | | | | | | | | | 96.0 | 3,250 | 63.7 |
| Barnes 200 X | Fed. 215 | 3.6 | Rem | 26 | | | | | | | | | | | | | | | | | | | 81.0 | 2,900 | 62.0 |
| Swift 200 A Frame | Fed. 215 | 3.55 | Rem | 26 | | | | | | | | | | | | | | | | | | | 91.5 | 3,020 | 60.8 |
| **.300 Wby. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 150 Sp. Pt. | Fed. 215 | 3.54 | Wby. | 26 | | | | | | | | | | 69.5 | 3,255 | 52.8 | 82.5 | 3,375 | 52.5 | 88.0 | 3,460 | 53.3 | | | |
| Barnes 165X | Fed. 215 | 3.51 | Rem. | 26 | | | | | | | | | | | | | | | | | | | 87.0 | 3,176 | 60.3 |
| Nosler 165 Part. | Fed. 215 | 3.51 | Rem. | 26 | | | | | | | | | | | | | | | | | | | 90.0 | 3,245 | 58.5 |
| Speer 165 Spitz | Fed. 215 | 3.51 | Wby. | 26 | | | | | | | | | | 65.0 | 3,060 | 52.8 | 80.5 | 3,250 | 53.2 | 85.0 | 3,305 | 53.4 | | | |

# Centerfire Loads

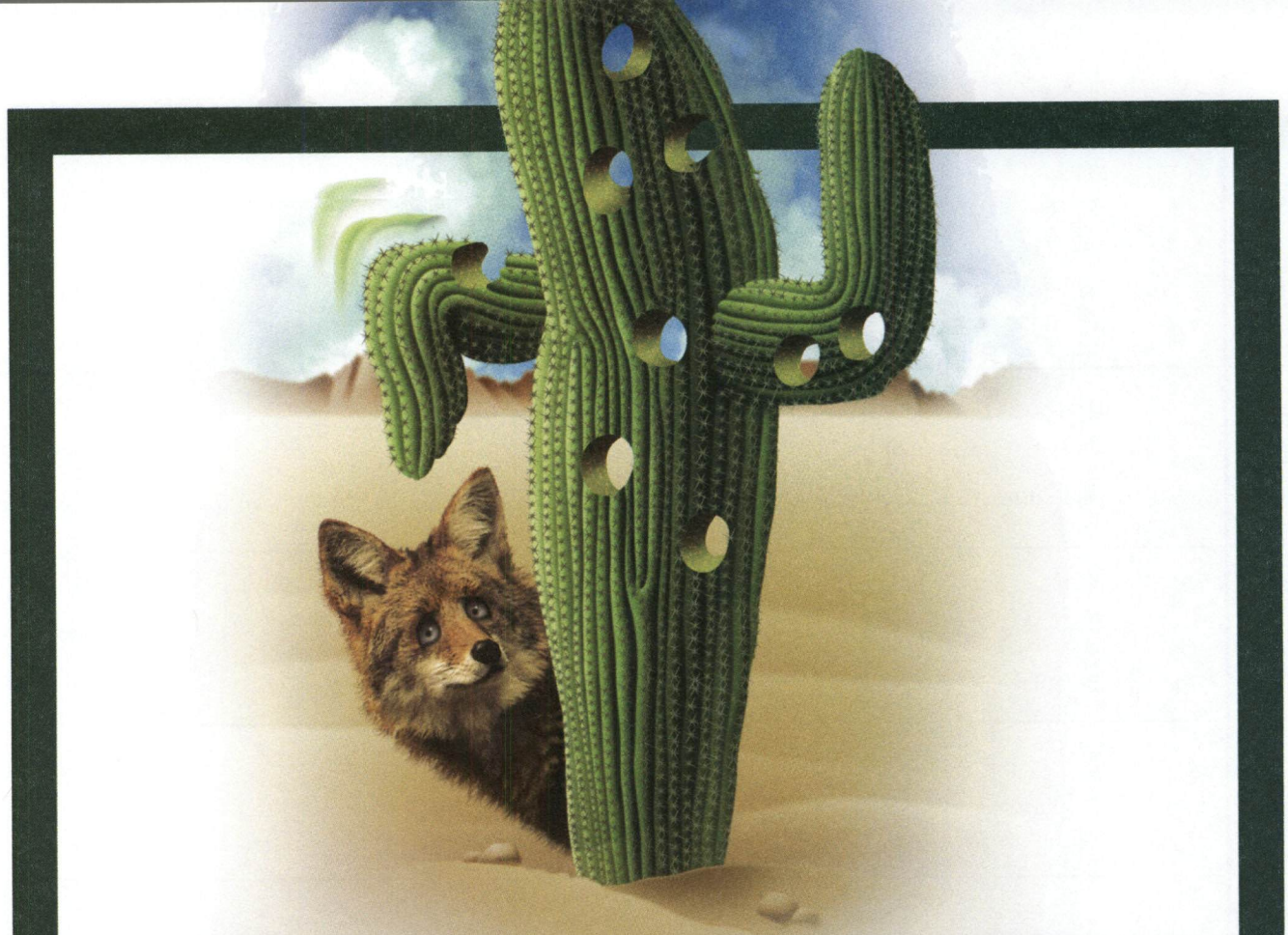
| Cartridge/Bullet | Primer | Min. OAL (inches) | Case | Bbl Length | 2400 Chg Wt | 2400 fps | 2400 psi x1000 | Reloder 7 Chg Wt | Reloder 7 fps | Reloder 7 psi x1000 | Reloder 10X Chg Wt | Reloder 10X fps | Reloder 10X psi x1000 | Reloder 15 Chg Wt | Reloder 15 fps | Reloder 15 psi x1000 | Reloder 19 Chg Wt | Reloder 19 fps | Reloder 19 psi x1000 | Reloder 22 Chg Wt | Reloder 22 fps | Reloder 22 psi x1000 | Reloder 25 Chg Wt | Reloder 25 fps | Reloder 25 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **.300 Wby. Mag. (continued)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nosler 180 Part. | Fed. 215 | 3.53 | Wby. | 26 | | | | | | | | | | | | | 76.5 | 3,070 | 53.4 | 80.0 | 3,115 | 53.3 | | | |
| Sierra 180 SBPT | Fed. 215 | 3.56 | Rem. | 26 | | | | | | | | | | | | | | | | | | | 88.5 | 3,172 | 60.8 |
| Speer 180 Spitz | Fed. 215 | 3.515 | Wby. | 26 | | | | | | | | | | | | | 78.0 | 3,120 | 53.0 | 82.5 | 3,195 | 53.4 | | | |
| Nosler 200 Partition | Fed. 215 | 3.56 | Rem | 26 | | | | | | | | | | | | | | | | | | | 83.2 | 2,940 | 59.7 |
| Sierra 200 Spitz | Fed. 215 | 3.55 | Wby. | 26 | | | | | | | | | | | | | 74.0 | 2,955 | 53.3 | 78.0 | 2,970 | 53.0 | | | |
| Hornady 220 RN | Fed. 215 | 3.535 | Rem | 26 | | | | | | | | | | | | | | | | | | | 81.6 | 2,809 | 60.8 |
| **.300 Win. Mag.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 150 Sp. Pt. | Win. WLR | 3.34 | Win. | 24 | | | | | | | | | | 65.3 | 3,180 | 61.0 | 76.7 | 3,225 | 61.0 | 81.5 | 3,275 | 60.4 | | | |
| Nosler 165 Part. | Fed. 215 | 3.34 | Rem. | 24 | | | | | | | | | | | | | | | | | | | 84.5 | 3,231 | 60.7 |
| Speer 165 Spitz | Win. WLR | 3.34 | Win. | 24 | | | | | | | | | | 62.6 | 2,980 | 60.1 | 74.6 | 3,070 | 60.4 | 79.4 | 3,135 | 60.8 | | | |
| Sierra 180 SBPT | Fed. 215 | 3.34 | Rem. | 24 | | | | | | | | | | | | | | | | | | | 82.3 | 3,112 | 60.6 |
| Speer 180 Spitz | Win. WLR | 3.34 | Win. | 24 | | | | | | | | | | | | | 72.3 | 2,990 | 61.0 | 76.9 | 3,030 | 60.3 | | | |
| Win. 180 F.S. | Win. WLR | 3.34 | Win. | 24 | | | | | | | | | | | | | 72.3 | 2,850 | 55.7 | 76.0 | 2,870 | 54.5 | | | |
| Barnes 200 X | Fed. 215 | 3.35 | Rem | 24 | | | | | | | | | | | | | | | | | | | 75.2 | 2,837 | 61.1 |
| Sierra 200 Spitz BT | Win. WLR | 3.34 | Win. | 24 | | | | | | | | | | | | | 68.0 | 2,810 | 60.3 | 73.4 | 2,875 | 60.3 | | | |
| Swift 200 SP | Fed. 215 | 3.308 | Rem. | 24 | | | | | | | | | | | | | | | | | | | 78.0 | 2,828 | 58.5 |
| Hornady 220 RN | Fed. 215 | 3.326 | Rem | 24 | | | | | | | | | | | | | | | | | | | 77.7 | 2,768 | 60.3 |
| **.300 WSM** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 150 Sp. Pt. | Win. WLR | 2.76 | Win | 26 | | | | | | | | | | | | | 72.3 | 3,226 | 60.2 | | | | | | |
| Barnes 165X | Win. WLR | 2.76 | Win | 26 | | | | | | | | | | | | | 69.5 | 3,100 | 61.5 | | | | | | |
| Swift 165 A Frame | Win. WLR | 2.76 | Win | 26 | | | | | | | | | | | | | 70.0 | 3,100 | 60.0 | | | | | | |
| Nosler 180 Part. | Win. WLR | 2.76 | Win | 26 | | | | | | | | | | | | | 68.0 | 2,978 | 60.5 | | | | | | |
| **.303 British** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 123SP | Win. WLR | 2.86 | Win. | 24 | | | | 38.6 | 2,750 | 43.2 | | | | 49.8 | 3,015 | 43.2 | | | | | | | | | |
| Speer 150 Spitz | Win. WLR | 2.935 | Win. | 24 | | | | 31.0 | 2,400 | 41.2 | | | | 46.2 | 2,755 | 43.2 | | | | | | | | | |
| Speer 180 RN | Win. WLR | 2.94 | Win. | 24 | | | | 30.0 | 2,050 | 39.6 | | | | 43.7 | 2,515 | 43.2 | 50.0 | 2,415 | 39.8 | | | | | | |
| **.30-06 Springfield** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 110JHP | Fed. 210 | 3.1 | Fed. | 24 | 30.9 | 2,715 | 55.9 | 45.0 | 3,145 | 56.4 | | | | 58.6 | 3,465 | 58.1 | | | | | | | | | |
| Sierra 125 Spitz | Fed. 210 | 3.12 | Fed. | 24 | 30.0 | 2,575 | 55.1 | 42.0 | 2,915 | 56.6 | | | | 56.8 | 3,275 | 58.5 | 65.5 | 2,995 | 47.3 | | | | | | |
| Barnes X 150 | Fed. 210 | 3.22 | Fed. | 24 | | | | | | | | | | 50.6 | 2,910 | 58.5 | 63.0 | 2,950 | 56.4 | 62.0 | 2,845 | 50.6 | | | |
| Hornady 150 Sp. Pt. | Fed. 210 | 3.21 | Fed. | 24 | 29.4 | 2,330 | 56.0 | 43.8 | 2,780 | 57.0 | | | | 53.6 | 3,005 | 58.5 | 63.5 | 2,895 | 50.9 | 63.0 | 2,815 | 46.0 | | | |
| Nosler 165 Part. | Fed. 210 | 3.22 | Fed. | 24 | | | | | | | | | | 49.8 | 2,815 | 58.5 | 62.1 | 2,890 | 58.5 | 60.0 | 2,755 | 51.3 | | | |
| Speer 165 Spitz | Fed. 210 | 3.25 | Fed. | 24 | 29.2 | 2,295 | 55.4 | 40.5 | 2,610 | 56.8 | | | | 50.5 | 2,835 | 58.5 | 62.0 | 2,880 | 56.1 | 62.0 | 2,824 | 52.5 | | | |
| Nosler 180 Part. | Fed. 210 | 3.25 | Fed. | 24 | | | | | | | | | | 48.3 | 2,660 | 58.5 | 60.0 | 2,750 | 57.1 | 60.0 | 2,675 | 51.5 | | | |
| Speer 180 Spitz | Fed. 210 | 3.25 | Fed. | 24 | 28.2 | 2,210 | 55.4 | 39.8 | 2,505 | 56.9 | | | | 48.5 | 2,720 | 58.2 | 60.0 | 2,800 | 57.0 | 60.0 | 2,710 | 51.0 | | | |
| Win. 180 F.S. | Win. WLR | 3.2 | Win. | 24 | | | | | | | | | | 47.0 | 2,600 | 56.5 | 57.2 | 2,685 | 55.3 | 59.0 | 2,670 | 52.0 | | | |
| Sierra 190 MKing | Fed. 210 | 3.3 | Fed. | 24 | 26.0 | 2,075 | 55.6 | 37.4 | 2,340 | 57.4 | | | | 47.3 | 2,600 | 58.5 | 58.0 | 2,720 | 58.1 | 60.0 | 2,755 | 56.6 | | | |
| Sierra 200 Spitz BT | Fed. 210 | 3.3 | Fed. | 24 | | | | | | | | | | 46.0 | 2,505 | 58.5 | 55.8 | 2,630 | 58.5 | 58.4 | 2,680 | 58.4 | | | |
| **.30-30 Win.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 125JFP | Win. WLR | 2.47 | Win. | 24 | | | | 30.0 | 2,630 | 34.1 | | | | | | | | | | | | | | | |
| Sierra 150JFP | Win. WLR | 2.525 | Win. | 24 | | | | 27.5 | 2,190 | 33.8 | | | | 36.0 | 2,450 | 40.6 | | | | | | | | | |
| Hornady 170JFP | Win. WLR | 2.545 | Win. | 24 | | | | 24.0 | 1,910 | 34.5 | | | | 34.1 | 2,330 | 40.5 | | | | | | | | | |
| **.308 Win.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sierra 110JHP | Fed. 210 | 2.6 | Fed. | 24 | | | | 42.5 | 3,130 | 47.2 | | | | | | | | | | | | | | | |
| Speer 110 JRN | Win. WLR | 2.49 | Win. | 24 | | | | | | | 47.3 | 3,292 | 59.3 | | | | | | | | | | | | |
| Sierra 125 JSP | Win. WLR | 2.7 | Win. | 24 | | | | | | | 46.0 | 3,109 | 58.0 | | | | | | | | | | | | |
| Speer 130 HP | Win. WLR | 2.651 | Win. | 24 | | | | | | | 44.0 | 2,966 | 57.2 | 46.3 | 2,880 | 57.3 | | | | | | | | | |
| Sierra 125 Spitz | Fed. 210 | 2.7 | Fed. | 24 | | | | 40.0 | 2,920 | 47.1 | | | | | | | | | | | | | | | |
| Sierra 150 Spitz | Win. WLR | 2.6 | Fed. | 24 | | | | | | | 41.0 | 2,752 | 58.1 | | | | | | | | | | | | |
| Barnes 150X | Fed. 210 | 2.75 | Fed. | 24 | | | | | | | | | | 45.0 | 2,815 | 56.8 | | | | | | | | | |
| Sierra 150 Spitz | Fed. 210 | 2.6 | Fed. | 24 | 25.0 | 2,215 | 36.7 | 37.0 | 2,750 | 46.9 | | | | 46.3 | 2,880 | 57.3 | | | | | | | | | |

# Centerfire Loads

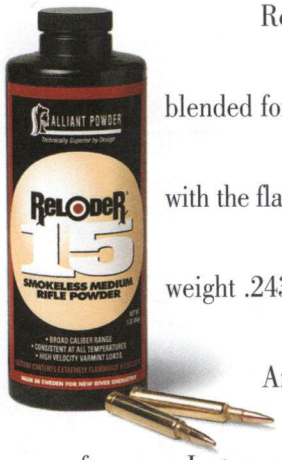
| Cartridge/Bullet | Primer | Min. OAL (inches) | Case | Bbl Length | 2400 Chg Wt | 2400 fps | 2400 psi x1000 | Reloder 7 Chg Wt | Reloder 7 fps | Reloder 7 psi x1000 | Reloder 10X Chg Wt | Reloder 10X fps | Reloder 10X psi x1000 | Reloder 15 Chg Wt | Reloder 15 fps | Reloder 15 psi x1000 | Reloder 19 Chg Wt | Reloder 19 fps | Reloder 19 psi x1000 | Reloder 22 Chg Wt | Reloder 22 fps | Reloder 22 psi x1000 | Reloder 25 Chg Wt | Reloder 25 fps | Reloder 25 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **.308 Win. (continued)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barnes 165X | Fed. 210 | 2.75 | Fed. | 24 | | | | | | | | | | 43.5 | 2,675 | 57.0 | | | | | | | | | |
| Sierra 165 Spitz | Fed. 210 | 2.7 | Fed. | 24 | | | | | | | 39.2 | 2,614 | 58.8 | | | | | | | | | | | | |
| Sierra 165 Spitz | Win. WLR | 2.6 | Fed. | 24 | | | | | | | | | | 45.5 | 2,780 | 57.0 | | | | | | | | | |
| Sierra 168HPBT | Fed. 210M | 2.7 | Fed. | 24 | | | | | | | | | | 42.8 | 2,665 | 56.6 | | | | | | | | | |
| Speer 180 Spitz | Fed. 210 | 2.75 | Fed. | 24 | | | | | | | | | | 44.0 | 2,645 | 57.5 | | | | | | | | | |
| Win. 180 F.S. | Win. WLR | 2.75 | Win. | 24 | | | | | | | | | | 41.5 | 2,500 | 57.0 | | | | | | | | | |
| **7.62X39** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 100 Plinker | CCI 200 | 1.83 | Fed. | 20 | 16.5 | 2,240 | 44.9 | | | | | | | | | | | | | | | | | | |
| Sierra 110HP | CCI 200 | 2.055 | Fed. | 20 | 16.0 | 2,115 | 44.8 | 26.5 | 2,330 | 38.3 | | | | | | | | | | | | | | | |
| Hornady 123SP | CCI 200 | 2.155 | Fed. | 20 | 15.3 | 1,915 | 44.9 | 25.5 | 2,330 | 45.0 | | | | | | | | | | | | | | | |
| Sierra 150JP | CCI 200 | 2 | Fed. | 20 | 14.8 | 1,800 | 45.0 | 24.8 | 2,145 | 44.6 | | | | | | | | | | | | | | | |
| **8mm Mauser** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 125SP | Win. WLR | 2.82 | Win. | 24 | | | | | | | | | | 46.8 | 2,760 | 36.0 | | | | | | | | | |
| Speer 150 Spitz | Win. WLR | 2.975 | Win. | 24 | | | | | | | | | | 44.0 | 2,560 | 36.0 | | | | | | | | | |
| Speer 170 Spitz | Win. WLR | 3.015 | Win. | 24 | | | | | | | | | | 41.4 | 2,400 | 36.0 | | | | | | | | | |
| **8mm Rem. Mag.** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Speer 170S Spitz | Rem. 9.5M | 3.5 | Rem. | 24 | | | | | | | | | | | | | 82.8 | 3,315 | 61.7 | 87.2 | 3,350 | 61.7 | | | |
| Speer 200 Spitz | Rem. 9.5M | 3.525 | Rem. | 24 | | | | | | | | | | | | | 77.7 | 3,050 | 61.6 | 81.0 | 3,090 | 61.6 | | | |
| Speer 200 Spitz | Fed. 215 | 3.525 | Rem. | 24 | | | | | | | | | | | | | | | | | | | 88.0 | 3,151 | 60.4 |
| Swift 200 A Frame SP | Fed. 215 | 3.6 | Rem | 24 | | | | | | | | | | | | | | | | | | | 88.0 | 3,175 | 61.1 |
| Hornady 220 Sp. Pt. | Rem. 9.5M | 3.6 | Rem | 24 | | | | | | | | | | | | | 75.0 | 2,885 | 61.6 | 77.0 | 2,910 | 61.3 | | | |
| Hornady 220 Sp. Pt. | Fed. 215 | 3.6 | Rem | 24 | | | | | | | | | | | | | | | | | | | 86.0 | 3,026 | 61.7 |
| Swift 220 A Frame SP | Fed. 215 | 3.6 | Rem | 24 | | | | | | | | | | | | | | | | | | | 83.0 | 3,006 | 61.2 |
| **.338 Win. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 200 Sp. Pt. | Win. WLR | 3.34 | Win. | 24 | | | | | | | | | | 65.0 | 2,935 | 51.3 | 78.0 | 3,020 | 52.4 | 78.0 | 2,875 | 43.2 | | | |
| Nosler 210 Spitz | Win. WLR | 3.33 | Win. | 24 | | | | | | | | | | | | | 74.0 | 2,910 | 52.0 | 76.0 | 2,840 | 46.2 | | | |
| Barnes 225X | Win. WLR | 3.335 | Win. | 24 | | | | | | | | | | 56.5 | 2,590 | 51.6 | 72.0 | 2,765 | 50.9 | 73.0 | 2,705 | 46.9 | | | |
| Hornady 225 Sp. Pt. | Win. WLR | 3.325 | Win. | 24 | | | | | | | | | | 61.8 | 2,705 | 51.6 | 75.3 | 2,865 | 52.1 | 77.0 | 2,790 | 46.2 | | | |
| Win. 230 F.S. | Win. WLR | 3.335 | Win. | 24 | | | | | | | | | | | | | 72.0 | 2,790 | 60.5 | 73.0 | 2,760 | 56.4 | | | |
| Hornady 250RN | Win. WLR | 3.33 | Win. | 24 | | | | | | | | | | | | | 73.0 | 2,735 | 52.3 | 73.0 | 2,620 | 45.3 | | | |
| **.340 Wby. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 200 Sp. Pt. | Fed. 215 | 3.66 | Wby. | 26 | | | | | | | | | | 71.8 | 2,990 | 53.1 | 85.0 | 3,095 | 53.3 | 91.0 | 3,170 | 53.2 | | | |
| Nosler 210 Spitz | Fed. 215 | 3.595 | Wby. | 26 | | | | | | | | | | 70.8 | 2,930 | 53.5 | 84.3 | 3,075 | 53.5 | 89.2 | 3,135 | 53.5 | | | |
| Hornady 225 Sp. Pt. | Fed. 215 | 3.645 | Wby. | 26 | | | | | | | | | | | | | 83.7 | 2,995 | 53.5 | 88.0 | 3,035 | 53.4 | | | |
| Hornady 250RN | Fed. 215 | 3.665 | Wby. | 26 | | | | | | | | | | | | | 80.7 | 2,865 | 53.5 | 84.7 | 2,880 | 53.3 | | | |
| **.35 Rem.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rem. 150SPCL | Win. WLR | 2.485 | Win. | 24 | | | | 32.0 | 2,290 | 30.7 | | | | | | | | | | | | | | | |
| Cast (GC) 158L | Win. WLR | 2.485 | Win. | 24 | | | | 28.0 | 2,200 | 29.8 | | | | | | | | | | | | | | | |
| Rem. 200SPCL | Win. WLR | 2.485 | Win. | 24 | | | | 31.0 | 2,115 | 30.7 | | | | | | | | | | | | | | | |
| **.35 Whelen** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 200SP | Rem. 9.5M | 3.125 | Rem. | 24 | | | | 51.5 | 2,630 | 50.3 | | | | 60.0 | 2,675 | 44.8 | | | | | | | | | |
| Hornady 250RN | Rem. 9.5M | 3.225 | Rem. | 24 | | | | 47.6 | 2,330 | 50.4 | | | | 59.5 | 2,550 | 48.4 | | | | | | | | | |
| **.350 Rem. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rem. 150SPCL | Rem. 9.5M | 2.8 | Rem. | 20 | | | | 55.0 | 3,075 | 47.5 | | | | | | | | | | | | | | | |
| Rem. 200SPCL | Rem. 9.5M | 2.8 | Rem. | 20 | | | | 48.0 | 2,550 | 48.5 | | | | | | | | | | | | | | | |
| Rem. 250PSP | Rem. 9.5M | 2.8 | Rem. | 20 | | | | 43.0 | 2,230 | 49.3 | | | | | | | | | | | | | | | |
| **.358 Win.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rem. 200PSP | Win. WLR | 2.78 | Win. | 24 | | | | 38.0 | 2,420 | 46.1 | | | | | | | | | | | | | | | |

# Centerfire Loads

| Cartridge/Bullet | Primer | Min. OAL (inches) | Case | Bbl Length | 2400 Chg Wt | 2400 fps | 2400 psi x1000 | Reloder 7 Chg Wt | Reloder 7 fps | Reloder 7 psi x1000 | Reloder 10X Chg Wt | Reloder 10X fps | Reloder 10X psi x1000 | Reloder 15 Chg Wt | Reloder 15 fps | Reloder 15 psi x1000 | Reloder 19 Chg Wt | Reloder 19 fps | Reloder 19 psi x1000 | Reloder 22 Chg Wt | Reloder 22 fps | Reloder 22 psi x1000 | Reloder 25 Chg Wt | Reloder 25 fps | Reloder 25 psi x1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **.358 Win. (continued)** | | | | | | | | | | | | | | | | | | | | | | | | | |
| Win. 250ST | Win. WLR | 2.78 | Win. | 24 | | | | 34.5 | 2,075 | 44.7 | | | | | | | | | | | | | | | |
| **.375 H&H Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 270SP | Rem. 9.5M | 3.545 | Rem. | 24 | | | | | | | | | | 73.4 | 2,685 | 49.5 | | | | | | | | | |
| Hornady 300MC | Rem. 9.5M | 3.55 | Rem. | 24 | | | | | | | | | | 66.5 | 2,455 | 49.6 | 79.0 | 2,540 | 49.6 | | | | | | |
| **.375 Win.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 220FP | Win. WLR | 2.555 | Win. | 24 | 23.5 | 1,900 | 44.0 | 36.0 | 2,260 | 45.5 | | | | | | | | | | | | | | | |
| **.38/55 Win.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| IVI 255SP | CCI 200 | 2.53 | IVI | 24 | 18.0 | 1,410 | 23.5 | 26.5 | 1,725 | 26.0 | | | | | | | | | | | | | | | |
| **.378 Wby. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 270SP | Fed. 215 | 3.62 | Wby. | 26 | | | | | | | | | | 90.5 | 2,940 | 53.3 | 110.8 | 3,110 | 53.1 | 115.0 | 3,050 | 47.2 | | | |
| Barnes 300 Solid | Fed. 215 | 3.625 | Wby. | 26 | | | | | | | | | | | | | 108.6 | 2,960 | 53.3 | 114.0 | 2,965 | 51.6 | | | |
| **.38/40 Win.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| 150 Sierra JHP | Rem. 2.5 | 1.585 | Rem. | 24 | 14.1 | 1,425 | 13.1 | | | | | | | | | | | | | | | | | | |
| 180 Sierra JHP | Rem. 2.5 | 1.585 | Rem. | 24 | 13.0 | 1,305 | 13.4 | 25.8 | 1,745 | 13.5 | | | | | | | | | | | | | | | |
| 200 Hornady FMJ/FP | Rem. 2.5 | 1.585 | Rem. | 24 | 12.7 | 1,225 | 13.5 | 24.0 | 1,610 | 13.4 | | | | | | | | | | | | | | | |
| **.416 Rem. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barnes 300X | Rem. 9.5M | 3.6 | Rem. | 24 | | | | | | | | | | 90.5 | 2,890 | 52.4 | | | | | | | | | |
| Barnes 350X | Rem. 9.5M | 3.6 | Rem. | 24 | | | | | | | | | | 85.0 | 2,610 | 52.4 | | | | | | | | | |
| A Square 400 Solid | Rem. 9.5M | 3.6 | Rem. | 24 | | | | | | | | | | 81.0 | 2,455 | 50.9 | 82.0 | 2,130 | 35.6 | | | | | | |
| Hornady 400RN | Rem. 9.5M | 3.565 | Rem. | 24 | | | | | | | | | | 82.0 | 2,445 | 51.7 | 83.0 | 2,140 | 35.6 | | | | | | |
| **.416 Rigby** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barnes 300X | Fed. 215 | 3.65 | Fed. | 24 | | | | | | | | | | | | | | | | 103.0 | 2,590 | 40.0 | | | |
| Barnes 350X | Fed. 215 | 3.675 | Fed. | 24 | | | | | | | | | | | | | | | | 101.0 | 2,455 | 40.3 | | | |
| A Square 400 Solid | Fed. 215 | 3.725 | Fed. | 24 | | | | | | | | | | | | | | | | 96.0 | 2,360 | 40.3 | | | |
| Hornady 400RN | Fed. 215 | 3.725 | Fed. | 24 | | | | | | | | | | | | | | | | 96.0 | 2,355 | 39.8 | | | |
| **.416 Wby. Mag.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barnes 325X | Fed. 215 | 3.65 | Wby. | 26 | | | | | | | | | | | | | | | | 117.0 | 2,880 | 51.0 | | | |
| Barnes 350X | Fed. 215 | 3.65 | Wby. | 26 | | | | | | | | | | | | | | | | 116.9 | 2,830 | 51.0 | | | |
| A Square 400 Solid | Fed. 215 | 3.68 | Wby. | 26 | | | | | | | | | | | | | | | | 117.0 | 2,705 | 50.5 | | | |
| Hornady 400SP | Fed. 215 | 3.615 | Wby. | 26 | | | | | | | | | | | | | | | | 117.5 | 2,720 | 51.0 | | | |
| **.44/40 Win.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rem. 200SP | Rem. 2.5 | 1.59 | Rem. | 24 | 14.5 | 1,230 | 12.5 | | | | | | | | | | | | | | | | | | |
| Cast 240L | Rem. 2.5 | 1.58 | Rem. | 24 | 12.0 | 1,130 | 12.5 | 23.5 | 1,290 | 12.1 | | | | | | | | | | | | | | | |
| **.444 Marlin** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cast (GC) 240L | Rem. 9.5 | 2.5 | Rem. | 24 | 22.0 | 1,725 | 27.9 | 42.5 | 2,080 | 28.9 | | | | | | | | | | | | | | | |
| Speer 240SP | Rem. 9.5 | 2.5 | Rem. | 24 | 25.0 | 1,730 | 21.9 | 51.0 | 2,400 | 38.1 | | | | | | | | | | | | | | | |
| Hornady 265FP | Rem. 9.5 | 2.5 | Rem. | 24 | 25.0 | 1,715 | 22.1 | 47.0 | 2,215 | 35.8 | | | | | | | | | | | | | | | |
| **.45/70 Govt.** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 300HP | Rem. 9.5 | 2.475 | Rem. | 24 | 30.0 | 1,650 | 23.0 | 50.0 | 2,075 | 24.7 | | | | | | | | | | | | | | | |
| Cast (GC) 385L | Rem. 9.5 | 2.575 | Rem. | 24 | 25.0 | 1,340 | 21.3 | 45.0 | 1,810 | 25.1 | | | | | | | | | | | | | | | |
| Speer 400FN | Rem. 9.5 | 2.7 | Rem. | 24 | 25.0 | 1,260 | 24.0 | 40.0 | 1,580 | 24.9 | | | | | | | | | | | | | | | |
| **.458 Win Mag** *chamber pressure in copper units* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hornady 300HP | Win. WLR | 2.95 | Win | 24 | 35.0 | 1,590 | 13.5 | 70.0 | 2,555 | 41.4 | | | | | | | | | | | | | | | |
| Cast 385 (GC) lead | Win. WLR | 3 | Win | 24 | 30.0 | 1,290 | 14.2 | 65.0 | 2,285 | 42.1 | | | | | | | | | | | | | | | |
| Hornady 500 FMJ | Win. WLR | 3.28 | Win | 24 | 35.0 | 1,415 | 32.6 | 64.0 | 2,000 | 0.0 | | | | | | | | | | | | | | | |



# HAVE YOU BEEN MISSING SOMETHING?

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# HANDLOADING PRECAUTIONS & TECHNICAL DATA

## Pistol and Revolver Cartridges Special Reloading Precautions

Most pistols and revolvers function best when loaded with a quick-burning powder such as Bullseye. **Since peak pressure is reached very quickly, the SEATING DEPTH of the bullet is very important: the deeper the bullet, the higher the pressure. If the bullet is seated too deeply, dangerous pressures will be generated, which could burst the gun and cause severe personal injury (including death).**

**Equally critical is the powder charge. Guard AGAINST multiple charges when reloading.** Certain cartridges (notably .38 Special) have been reloaded accidentally with double and even triple charges, with catastrophic results when fired in the gun.

**A. Prevent deeply seated bullets.**

1. Your assembled cartridges must be as long as, or longer than, the minimum length listed for the combination you are reloading.
2. Set your bullet station accordingly and lock tool securely.
3. Keep bullet station clean of accumulating lead and grease.
4. Inspect all loaded rounds for overall length.
5. Be sure every bullet is held tightly by shell mouth, especially pistol loads (recoil drives magazine against bullet noses of contained cartridges).

**B. Prevent multiple charges.**

1. **Handloading:** Keep track of every powder charge, then look inside all shells and compare powder levels.
2. **Progressive reloading:** Be sure every shell is truly empty; don't back up the turret; don't jiggle the handle; don't use a shell to clean out the powder train (use a paper cup or equivalent).

**C. Inspection.**

1. Discard cases with split mouths.
2. Discard cases with enlarged primer pockets.
3. Do not use cases that are designed for primer-propelled practice cartridges; such cases may not be designed for full power loads.

## Physical Effect of Gun Recoil (Kick)

The rearward motion of every gun, its recoil, increases when heavier shot or heavier bullets are fired, and when higher velocity loads are fired. This motion must be opposed by the shoulder, or the pistol hand, of the shooter. Whenever the recoil is perceptibly annoying to the shooter, accuracy on succeeding firings undoubtedly diminishes.

When the shooting condition demands heavy loads and high velocity, recoil kick can be reduced by using a heavier gun, and by spreading the force over a larger area of the anatomy, such as by using a wider stock, larger grip, plus shoulder pad or softer grip.

Excellent publications available to the reloader, plus his or her own growing sophistication, have generated a wholesome trend away from maximum loads and toward accuracy of loads no more powerful than needed for the intended purpose. Reducing recoil increases accuracy.

Contributing to increased accuracy as well as the pleasantness of shooting is in two main areas:

1. This *Reloaders' Guide* includes many reduced loads.
2. Our research indicates that the burning rate of powders has a modest effect on recoil. For example, whenever two or more powders are listed for the same load, the slower one usually is chosen by the expert shooter as giving milder felt recoil. An intriguing aspect of reloading at home is the freedom to assemble, for example, trap loads with Red Dot or Green Dot powder, then to shoot them alternately to decide which seems more comfortable.

## Handloading Precautions

1. **Understand what you are doing and why.** Read handbooks and manuals on reloading. Talk to experienced reloaders. Write or call suppliers of components if you have questions or are in doubt.
2. Stay ***alert*** when reloading. **Do not reload when distracted.**
3. Establish a loading procedure and follow it. **Do not vary your sequence of operations.**
4. **Examine empty cases** (shotshell or metallic) to be sure they are in good condition before reloading. Never force live cartridges into or out of the chamber of a gun.
5. **Do not use cases that are designed for primer-propelled practice cartridges;** such cases may not be designed for full power loads.
6. **Do not *ream* out or *enlarge* flash holes of metallic cartridge cases.** This may change the ignition rate and result in dangerous pressures.
7. **Do not punch out live primers.** Fire the empty primed shells in a gun.
8. **Do not mix primers.** Primers differ in brisance of ignition, which affects pressure and velocity. Use only the primer listed.
9. **The shotshell loading data in the *Reloaders' Guide* are for *LEAD SHOT only. Use steel shot only as specified in the steel shot data section (pgs. 6-7).***
10. One-piece plastic wads for shotshells vary in compressibility and gas-sealing effectiveness. Use only the wad listed.
11. If you "throw," or measure powder charges by volume, check-weigh the charge frequently. **Do not *mix* powders.**
12. **Do not use powders near a flame, spark-producing machinery, or heating device.** Do not expose powders to temperatures above 100°F.
13. Keep out of reach of children.
14. **Do not smoke while reloading.**

# HANDLOADING PRECAUTIONS & TECHNICAL DATA (continued)

## Smokeless Powders for Reloading

We currently offer 15 powders for use in reloading. These are listed in the order of decreasing burning rates. Each powder listed is "slower" than those preceding it and "faster" than those following it. Among these Alliant smokeless powders, for example, Red Dot® burns more slowly than Bullseye®, but faster than Green Dot®.

| Powder | Principal Use[1] | Can Also be Used In[1] |
|---|---|---|
| Bullseye® | Handgun Loads | 12-Gauge Light Target Loads |
| Red Dot® | Light and Standard Shotshell Loads, 12-Gauge | Handgun Loads |
| American Select® | 12-Gauge Target Loads | Handgun Loads |
| Green Dot® | Standard and Medium Shotshell Loads, 12- and 16-Gauge | Handgun Loads |
| Unique® | All-Around Shotshell Powder, 12-, 16-, 20-, and 28-Gauge | Handgun Loads |
| Power Pistol® | High performance pistol loads such as the 9mm, .40 S&W, and 10mm | Moderate pressure pistol cartridges like the .38 Special, .380 Auto, and .45 ACP |
| Herco® | Heavy Shotshell Loads, 10-, 12-, 16-, 20-, and 28-Gauge | Heavy Handgun Loads |
| Blue Dot® | Magnum Shotshell Loads, 10-, 12-, 16-, 20-, and 28-Gauge | Magnum Handgun Loads |
| Steel® | Steel Shotshell, 10- and 12-Gauge | Magnum, Shotshell and Turkey Loads |
| 2400® | Magnum Handgun Loads | Some Rifle and Shotshell Loads |
| Reloder® 7 | Light Rifle Loads | Silhouette Loads |
| Reloder® 10X | Light Varmint/Light Bullet Loads | Bench rest calibers; Light Bullet 308 |
| Reloder® 15 | Medium Rifle Loads | Silhouette Loads |
| Reloder® 19 | Magnum Rifle Loads | Target and hunting rifle loads |
| Reloder® 22 | Magnum Rifle Loads | Maximum hunting loads |
| Reloder® 25 | Magnum Rifle Loads | Maximum hunting loads |

[1] *Use only in the loads printed in this Guide.*

## Packaging

| Powder | 1-lb Canister | 4-lb Canister | 5-lb Canister | 8-lb Keg |
|---|---|---|---|---|
| Bullseye, Red Dot, American Select, Green Dot, Unique, Herco, 2400 | x | x | | x |
| Power Pistol | x | x | | |
| Blue Dot | x | | x | |
| Reloder Series | x | | x | |
| Steel | x | x | | |

All 15 powders are always in stock at distributors' magazines throughout the U.S.A., and in most countries where reloading is legally permitted and popular. Any reloader unable to purchase any of the 15 powders at retail stores that handle powders should write to the address on the back cover. We cannot ship directly, but we will endeavor to correct supply shortages in your area.

## Powder Information

Smokeless sporting propellants are of two basic types – single-base and double-base. Single-base propellants derive their energy from nitrocellulose and double-base from a combination of nitrocellulose and nitroglycerin. Alliant propellants range from the "near" single-base American Select (2% nitroglycerin) to the high nitroglycerin (40%) double-base Bullseye. In addition, our propellants contain stabilizers for long storage life and various other ballistic modifiers which reduce flash, improve combustion efficiency, and promote clean burning.

Some of our propellants also have a chemical coating on the surface to control the burning rate. This creates a progressive burn for achieving higher velocities at lower pressures. All of our propellants have a graphite glaze, which ensures smooth, consistent metering of charges through volumetric reloaders.

Alliant propellants are extruded and cut into circular flakes or cylinders by precision dies and cutting equipment. Granule size tolerances are very tight and uniform to prevent separation of different size granules and to ensure consistent ballistic performance, load after load.

By utilizing a precise combination of chemical formulation, granule size, and chemical coatings, we are able to tailor the burning characteristics of our propellants to achieve the best overall performance in a wide range of loads.

Because each of our propellants is specifically engineered to have different burn rates and performance characteristics, **NEVER BLEND OR MIX DIFFERENT POWDERS, AND USE ONLY THE GRADE AND QUANTITY RECOMMENDED IN THIS RELOADER'S GUIDE.**

All powders burn with great precision and rapidity inside the gun chamber, generating the hot, high-pressure gas that accelerates the bullet (or shot) and drives it toward the target. **It is critically important for safety that the powder used is matched to the bullet (or shot) weight and other factors; otherwise, the gun parts may be deformed or may even burst and cause serious personal injury (including death).** Shot-to-shot accuracy can also be degraded by deviations from recommended loads. Even after 80 years of producing and testing powders, ballisticians are unable to calculate and predict **exact** ballistic results; we must test-fire our powders with each set of components and record the results. Therefore, **the ballistic values and recommended combinations listed in this booklet must be followed without deviation.**

**Working up charges.** For shotgun loads, use the charge weight shown. However, for all rifle and pistol loads, first load and fire a few cartridges at 10% less charge than is shown, watching for any sign of excessive pressure (difficult extraction, flattened or blown primers, unusual recoil).

**Handgun loads.** Many pistol and revolver loads require only small amounts of fast-burning powders; therefore: (1) guard against accidental double charges, and even multiple charges, whether loading with handtools or with progressive loading devices; (2) be sure that each bullet is positioned in the case so that the minimum overall length is not violated.

### Dram Equivalent

Prior to the commercialization of smokeless powder, shotgun shells were loaded with black powder. The weight measurement system used for black powder was "drams." Compared with black powder, **smokeless powder is more dense and MUCH more energetic, so it cannot safely be measured and used like black powder.** Indeed, a different weight system was selected for smokeless powder: "grains," wherein 7,000 grains equal one pound.

Since many shooters still wanted to be able to compare their smokeless powder loads with the original black powder loads, the term "dram equivalent" evolved. Simply stated, the dram equivalent is an indicator of the velocity of a particular shot load. **But note that the charge and weight of smokeless powder must not be calculated from the dram equivalent.**

### Notice

We have inserted information on the properties and storage of smokeless powder for your understanding, so that you can avoid unnecessary risks when using it. This information, on pages 51 and 52, was published initially by the Sporting Arms and Ammunition Manufacturers' Institute, Inc., several years ago in the interest of safety. You must read these pages carefully and comply with the precautions listed. If you have questions, please call or write to us at the address on the back cover.

# Important Safety and Health Precautions

To perform in a gun, powders must ignite easily and burn rapidly. These characteristics require use of common sense to avoid accidents. **YOU MUST OBSERVE THESE PRECAUTIONS:**

1. **DO NOT smoke when reloading.**
2. **DO NOT use spark-producing tools.**
3. **DO NOT mix powders of different kinds.**
4. **DO NOT leave powder where children can get it.**
5. **DO NOT try to load when distracted.**
6. **Avoid an open fire or working near spark-producing machinery.**
7. **Pour out only the amount of powder needed for immediate work.**
8. **Check the powder measure each time it is used. Make sure the settings have not been accidentally changed. Check-weigh "thrown charges" frequently.**
9. **Clean up any spilled powders. Use a brush and dustpan; do not use a vacuum cleaner. Dispose of spilled powder as described in the SAAMI pages of this Guide.**
10. **Store powder only in its original container, which was carefully designed for this usage. DO NOT REPACKAGE. Do not purchase or accept any Alliant powder not in its original, FACTORY-SEALED container.**
11. **Be sure the powder container is completely empty before discarding. Do not use the container to store other powders or materials, or for any other purpose.**
12. **Always keep in mind that smokeless powder is an explosive material and highly flammable. It should always be stored and handled in such a way as to avoid impact, friction, heat, sparks, or flame.**
13. **Wear safety glasses when reloading.**
14. **This material contains nitroglycerin. Inhalation, skin contact, or ingestion may cause severe headache, nausea, and lowering of blood pressure. THEREFORE, THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN HANDLING POWDERS:**
    - **A. Do not take internally. In case of ingestion, cause vomiting. Call a physician.**
    - **B. Avoid contamination of food, beverages, or smoking materials.**
    - **C. Avoid breathing dust. Ensure adequate ventilation during handling.**
    - **D. Wash thoroughly after handling and before eating, drinking, or smoking.**
    - **E. Do not carry powder in clothing.**

**You must also always remember:**

1. **Establish a routine for reloading.** It will result in more uniform loads and less chance of error.
2. Some primers are more powerful than others (they produce more gas at a higher temperature). **Use only the primers specified herein.**
3. Shotshell wads differ in their sealing ability. **Use only the load combinations specified herein.**
4. If you use cast bullets, their diameter, hardness, lubrication, and crimp will affect the ballistics.
5. **The shotshell loads in this booklet are for use with LEAD SHOT ONLY! For steel shot see special steel section, pages 30-31.**
6. **Use only the brands of powder and components shown in our tables. Do not substitute other types.**
7. Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead, a substance known to cause birth defects, reproductive harm, and other serious physical injury. **Have adequate ventilation at all times. Wash hands and face thoroughly after handling and before coming in contact with food, chewing materials, and smoking material.**

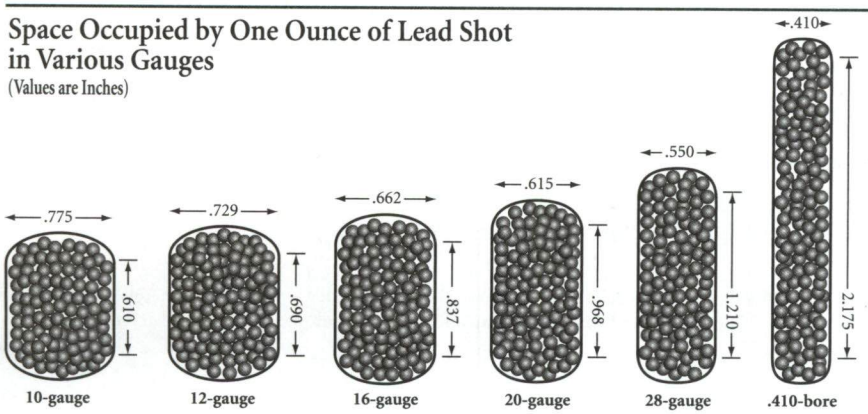
# Reference Tables

## Approximate Number of Pellets in Specific Weights of Lead Shot (Sizes 2 Through 9)

| Weight, oz | No. 2 | No. 4 | No. 5 | No. 6 | No. 7 | No.8 | No. 8 | No. 9 |
|---|---|---|---|---|---|---|---|---|
| | 45 | 67 | 85 | 112 | 175 | 205 | 242 | 292 |
| i | 67 | 101 | 127 | 168 | 262 | 308 | 363 | 439 |
| m | 79 | 118 | 149 | 197 | 306 | 359 | 425 | 512 |
| 1 | 90 | 135 | 170 | 225 | 350 | 410 | 485 | 585 |
| 1 | 101 | 152 | 191 | 253 | 393 | 461 | 545 | 658 |
| 1 | 112 | 169 | 213 | 281 | 437 | 513 | 605 | 731 |
| 1 | 124 | 186 | 234 | 309 | 481 | 564 | 665 | 804 |
| 1 | 135 | 202 | 255 | 337 | 525 | 615 | 730 | 877 |

## Space Occupied by One Ounce of Lead Shot in Various Gauges

(Values are Inches)




## Internal Diameter of the Barrel in Several Shotgun Gauges

10-Gauge—0.775-Inch
12-Gauge—0.729-Inch
16-Gauge—0.662-Inch
20-Gauge—0.615-Inch
28-Gauge—0.550-Inch
.410-Bore—0.410-Inch

# Reference Tables (continued)

## Number of Shells That Can Be Loaded with One Pound of Powder at Various Grains Per Load

(The term grain is a measure of weight: 7,000 grains equal one pound)

| Grains/ Load | Loads/ Pound | Grains/ Load | Loads/ Pound | Grains/ Load | Loads/ Pound | Grains/ Load | Loads/ Pound | Grains/ Load | Loads/ Pound | Grains/ Load | Loads/ Pound |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 583 | 23 | 304 | 34 | 205 | 45 | 156 | 56 | 125 | 67 | 104 |
| 13 | 538 | 24 | 291 | 35 | 200 | 46 | 152 | 57 | 123 | 68 | 103 |
| 14 | 500 | 25 | 280 | 36 | 194 | 47 | 149 | 58 | 121 | 69 | 101 |
| 15 | 466 | 26 | 269 | 37 | 189 | 48 | 146 | 59 | 119 | 70 | 100 |
| 16 | 437 | 27 | 259 | 38 | 184 | 49 | 143 | 60 | 117 | 71 | 99 |
| 17 | 411 | 28 | 250 | 39 | 179 | 50 | 140 | 61 | 115 | 72 | 97 |
| 18 | 388 | 29 | 241 | 40 | 175 | 51 | 137 | 62 | 113 | 73 | 96 |
| 19 | 368 | 30 | 233 | 41 | 170 | 52 | 135 | 63 | 111 | 74 | 95 |
| 20 | 350 | 31 | 225 | 42 | 166 | 53 | 132 | 64 | 109 | 75 | 93 |
| 21 | 333 | 32 | 218 | 43 | 162 | 54 | 130 | 65 | 108 | 76 | 92 |
| 22 | 318 | 33 | 212 | 44 | 159 | 55 | 127 | 66 | 106 | 77 | 91 |

## Typical Percentage of Pellets in a 30-Inch Circle at 40 Yards (Pattern) for Various Choke Sizes

(Choke is a Constriction at the Muzzle of a Shotgun Barrel)

Full Choke—70%

Improved Modified Choke—65 to 70%

Modified Choke—55%

Improved Cylinder—50%

True Cylinder—40%

# Ballistic Data

The velocity and pressure obtained with the specific combinations of shell, wad, primer, bullet or shot weight, powder, and powder weight provided in this booklet were obtained in a laboratory, where considerable effort is made to control the load and test conditions. Velocity was measured with a chronograph (electric stopwatch). Pressure was measured either by compressing copper cylinders (C.U.P.), or electronically, by use of a piezoelectric transducer (P.S.I.).

**Guns are designed to take a considerable amount of internal pressure, but if this is exceeded, they burst violently. Be alert to signs of excess pressure, such as heavy recoil, flattened primers, or blown primers. Don't make changes in the suggested loads.**

Tone variations (shaded areas) used in the reloading tables are for ease of reading and do not represent preferred loads.

**The quantity of powder to use is listed in GRAINS, which are a measure of weight, under each powder column.**

Every reloader needs a good-quality scale for weighing each powder charge, or for checking the weight of powder thrown by volumetric loaders.

## Special Notes Regarding Components Other Than Powder

**A. Shotgun Shells.** Manufacturers may sell ammunition under different brand names that are identical for reloading purposes. Following are popular variations. When in doubt, consult the ammunition producer.

- **Federal Hi Power Plastic** same as **Duck and Pheasant, Field, Game,** and **Dove and Squirrel** or **Top Gun.**
- **Federal Premium** (Integral Base Wad)
- **Remington-Peters.** Same as Mohawk brand shells.
- **Remington-STS Type.** Same as **Premier, Nitro 27, GunClub,** and **Game Loads**
- **Winchester AA-Type .** Old and new style hulls are interchangeable.
- **Winchester Polyformed Type (Reifenhauser Tube)** same as **Duck and Pheasant, Dove and Squirrel.**

**B. Primers**

- **CCI 109** and **CCI 209** are ballistically identical and can be interchanged.
- **CCI 209M** (Magnum) is "hotter" and cannot be substituted for CCI 109 or 209. Use 209M only as listed.
- **Rem. 209** is "hotter" and cannot be substituted for Rem. 97★ or Rem. 209P primer.
- **Rem. 209P** is interchangeable with Rem. 97★ primer.
- **Federal 209A** is "hotter" and cannot be substituted for Federal 209.

**C. Wads.** Card wads and fiber wads are used for certain slug and buckshot loads and a few light shotshell loads. **Do not interchange wads.**

**D. Shot. Use only clean lead shot. DO NOT USE STEEL SHOT IN SHOTSHELL LOADS EXCEPT AS LISTED IN STEEL™ SECTION.**

**E. Shot Buffers. Do not add any buffers or fillers of any kind to shotshell loads listed in this Guide.**

**F. Cards and Fillers. For revolver, pistol, and rifle cartridge reloading, do not add any cards, kapok, or fillers of any kind to loads listed in this Guide.**

## Black Powder

**Black powder is entirely different from smokeless powder. NEVER substitute one for the other.** Smokeless powders have much more energy than black powder. **NEVER attempt to use smokeless powder in black powder guns or saluting cannon; they may blow up and cause serious personal injury (including death).**

# Powder Bushing Charts

A reloading scale is ***required*** to check the nominal weight of a powder charge.

Powder bushings can vary in the charge weight they drop and could vary as much as several grains under certain conditions.

Powder density, moisture content, and loading technique can cause a variation from the bushing weights listed on the charts. Also, the loading machine vibration affects charge weights. A complete loading cycle should be completed to ***assure*** an average powder charge weight.

The information in these tables has been supplied by the reloading machine manufacturers and ***is not a reloading recommendation*** or a result of Alliant's testing.

## Lee Load-All Capacity Bushing Chart (Units shown in grains)

| Bushing # | .095 | .100 | .105 | .110 | .116 | .122 | .128 | .134 | .141 | .148 | .155 | .163 | .171 | .180 | .189 | .198 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Red Dot | 11.0 | 11.6 | 12.2 | 12.8 | 13.5 | 14.2 | 14.8 | 15.5 | 16.4 | 17.2 | 18.0 | 18.9 | 19.8 | 20.9 | 21.9 | 23.0 |
| Amer-Select | 11.6 | 12.2 | 12.8 | 13.4 | 14.2 | 14.9 | 15.6 | 16.4 | 17.2 | 18.1 | 18.9 | 19.9 | 20.9 | 22.0 | 23.1 | 24.2 |
| Green Dot | 12.3 | 13.0 | 13.6 | 14.3 | 15.1 | 15.8 | 16.6 | 17.4 | 18.3 | 19.2 | 20.1 | 21.2 | 22.2 | 23.4 | 24.5 | 25.7 |
| Blue Dot | 18.0 | 19.0 | 19.9 | 20.8 | 22.0 | 23.1 | 24.3 | 25.4 | 26.7 | 28.0 | 29.4 | 30.9 | 32.4 | 34.1 | 35.8 | 37.5 |
| Unique | 14.3 | 15.0 | 15.8 | 16.5 | 17.4 | 18.3 | 19.2 | 20.1 | 21.2 | 22.2 | 23.3 | 24.5 | 25.7 | 27.0 | 28.4 | 29.7 |
| Herco | 13.9 | 14.6 | 15.3 | 16.1 | 16.9 | 17.8 | 18.7 | 19.6 | 20.6 | 21.6 | 22.6 | 23.8 | 25.0 | 26.3 | 27.6 | 28.9 |
| 2400 | 21.0 | 22.1 | 23.2 | 24.3 | 25.6 | 27.0 | 28.3 | 29.6 | 31.2 | 32.7 | 34.3 | 36.0 | 37.8 | 39.8 | 41.8 | 43.8 |

**NOTE:* *Only available with Lee Load-Fast.*

## Hornady Powder Bushing Chart for 366 Auto and Apex 91 (Units shown in grains)

| Grains | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Red Dot | | | 384 | 393 | 405 | 423 | 438 | 453 | 468 | 480 | 489 | 498 | 510 | 519 | | | | | | | | | | | | | | | | | | | | | |
| American Select | | | | | | | 417 | 423 | 432 | 447 | 456 | 468 | 477 | 483 | | | | | | | | | | | | | | | | | | | | | |
| Green Dot | | | 363 | 378 | 390 | 405 | 420 | 435 | 447 | 456 | 468 | 480 | 492 | 501 | 513 | 522 | 534 | — | 549 | 558 | | | | | | | | | | | | | | | |
| Unique | | | | 342 | 354 | 369 | 381 | 393 | 405 | 414 | 423 | 435 | 444 | 453 | 465 | 474 | 483 | 492 | 501 | — | 510 | | | | | | | | | | | | | | |
| Herco | | | | 357 | 369 | 381 | 393 | 405 | 414 | 426 | 438 | 450 | 462 | 471 | 477 | 489 | 498 | — | 513 | 522 | 531 | — | 549 | 558 | 564 | 573 | — | 588 | 594 | | | | | | | |
| Blue Dot | | | | | | | | | 366 | 372 | 381 | 390 | 396 | 408 | 414 | 423 | 435 | 441 | 447 | 459 | 468 | 474 | 483 | 489 | 495 | 501 | 510 | 516 | 522 | 531 | 534 | 543 | 549 | 555 | 561 |
| 2400 | | 256 | 266 | — | 291 | 300 | 312 | 324 | 330 | 339 | | | | | | | | | | | | | | | | | | | | | | | | | |

## Ponsness/Warren Powder Bushing Chart (Units shown in grains)

| Bushing # | 1A | 2A | 3A | A | B | C | C1 | D | D1 | E | E1 | E2 | F | F1 | F2 | G | G1 | H | I | J | J1 | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | AA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bullseye | | | | | | | | | | 16.2 | 16.8 | 17.7 | 18.7 | 19.4 | | | | | | | | | | | | | | | | | | | | | | | |
| Red Dot | | | | | | | | | | | 11.6 | 12.2 | 12.9 | 13.4 | 13.7 | 14.5 | 14.7 | 15.7 | 16.5 | 16.8 | 17.3 | 17.6 | 18.5 | 19.4 | 20.7 | 20.9 | 21.3 | 21.9 | 22.9 | | | | | | | | | |
| American Select | | | | | | | | | | | | | | | | | 16.4 | 17.5 | 18.2 | 18.8 | 19.4 | 19.9 | 20.6 | 22.0 | | | | | | | | | | | | | |
| Green Dot | | | | | | | | | | | 11.7 | 12.3 | 13.1 | 13.6 | 13.8 | 14.7 | 14.9 | 15.9 | 16.7 | 17.0 | 17.5 | 17.9 | 18.8 | 19.6 | 21.1 | 21.3 | 21.8 | 22.3 | 23.2 | 23.6 | 25.3 | 26.5 | | | | | |
| Unique | | | | | | | | | 12.6 | 14.2 | 14.8 | 15.6 | 16.5 | 17.2 | 17.5 | 18.7 | 19.0 | 20.2 | 21.2 | 21.7 | 22.3 | 22.7 | 24.0 | 25.0 | 26.8 | 27.1 | 27.6 | | | | | | | | | | |
| Herco | | | | | | | | | 12.3 | 13.8 | 14.4 | 15.1 | 16.0 | 16.6 | 16.9 | 18.0 | 18.3 | 19.5 | 20.5 | 20.9 | 21.5 | 21.9 | 23.0 | 24.0 | 25.7 | 26.0 | 26.5 | 27.1 | 28.1 | 28.8 | 30.7 | 32.1 | 33.1 | 34.9 | 35.4 | 37.2 | |
| Blue Dot | | | | | | | | | 16.4 | 18.4 | 19.2 | 20.1 | 21.3 | 22.2 | 22.6 | 23.9 | 24.3 | 25.9 | 27.2 | 27.7 | 28.5 | 29.1 | 30.6 | 31.9 | 34.2 | 34.5 | 35.2 | 36.0 | 37.5 | 38.1 | 40.7 | 42.5 | 43.8 | 46.5 | 47.2 | 49.5 | 55.7 |
| 2400 | | 12.3 | 13.2 | 15.2 | 16.1 | 16.8 | 17.6 | 18.3 | 19.0 | 21.3 | 22.2 | 23.3 | 24.7 | 25.7 | 26.1 | 27.7 | 28.2 | 30.0 | 31.5 | 32.2 | 33.1 | 33.7 | 35.5 | 37.1 | 39.8 | 40.2 | 41.1 | 42.0 | 43.8 | 44.5 | 47.5 | 49.8 | | | | | |

## MEC Powder Bushing Chart (Units shown in grains)

| Bushing # | 9 | 10 | 11 | 12 | 12A | 13 | 13A | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bullseye | | 8.6 | 9.1 | 9.6 | 10.1 | 10.6 | 11.2 | 11.7 | 12.3 | 12.9 | 13.5 | 14.1 | 14.8 | 15.4 | 16.1 | 16.8 | 17.5 | 18.2 | 18.9 | 19.6 | 20.4 | 21.2 | 21.9 | 22.8 | 23.7 |
| Red Dot | | 6.3 | 6.7 | 7.1 | 7.5 | 7.9 | 8.3 | 8.7 | 9.2 | 9.6 | 10.1 | 10.6 | 11.1 | 11.6 | 12.1 | 12.6 | 13.1 | 13.7 | 14.2 | 14.9 | 15.7 | 16.4 | 17.1 | 17.8 | 18.5 |
| e³ | | 6.6 | 7.0 | 7.2 | 7.5 | 8.0 | 8.3 | 8.9 | 9.2 | 9.9 | 10.5 | 11.0 | 11.7 | 12.3 | 12.8 | 13.4 | 13.8 | 14.2 | 14.8 | 15.3 | 15.9 | 16.4 | 16.9 | 17.4 | 17.9 |
| American Select | | 6.9 | 7.3 | 7.7 | 8.2 | 8.6 | 9.1 | 9.6 | 10.1 | 10.6 | 11.1 | 11.7 | 12.2 | 12.8 | 13.3 | 13.9 | 14.5 | 15.1 | 15.7 | 16.4 | 17.0 | 17.7 | 18.3 | 19.0 | 19.7 |
| Green Dot | | 6.7 | 7.2 | 7.6 | 8.0 | 8.4 | 8.9 | 9.3 | 9.8 | 10.3 | 10.8 | 11.3 | 11.8 | 12.4 | 12.9 | 13.5 | 14.0 | 14.6 | 15.2 | 15.8 | 16.4 | 17.0 | 17.7 | 18.3 | 19.0 |
| Unique | | 7.5 | 7.9 | 8.4 | 8.9 | 9.4 | 9.9 | 10.4 | 10.9 | 11.4 | 12.0 | 12.6 | 13.1 | 13.7 | 14.5 | 15.1 | 15.8 | 16.4 | 17.1 | 17.7 | 18.4 | 19.1 | 19.8 | 20.5 | 21.1 |
| Herco | | 7.9 | 8.3 | 8.8 | 9.3 | 9.8 | 10.4 | 10.9 | 11.4 | 12.0 | 12.6 | 13.2 | 13.8 | 14.4 | 15.0 | 15.7 | 16.3 | 17.0 | 17.7 | 18.4 | 19.1 | 19.8 | 20.6 | 21.3 | 22.1 |
| Blue Dot | | 10.8 | 11.3 | 11.9 | 12.5 | 13.1 | 13.7 | 14.4 | 15.0 | 15.7 | 16.3 | 17.0 | 17.7 | 18.4 | 19.2 | 20.1 | 21.0 | 21.9 | 22.8 | 23.7 | 24.6 | 25.5 | 26.4 | 27.3 | 28.2 |
| 2400 | | 11.8 | 12.5 | 13.3 | 14.0 | 14.8 | 15.6 | 16.4 | 17.2 | 18.1 | 18.9 | 19.8 | 20.7 | 21.7 | 22.6 | 23.6 | 24.6 | 25.6 | 26.6 | 27.7 | 28.8 | 29.9 | 31.0 | 32.1 | 33.3 |
| 410 | 11.1 | 11.7 | 12.1 | 13.0 | 13.6 | 14.5 | 15.1 | 15.7 | 16.6 | 17.4 | 18.4 | 19.2 | 20.2 | 21.1 | 22.1 | 23.1 | 24.4 | 25.6 | 26.1 | 26.9 | 28.0 | 29.5 | 30.3 | 31.4 | 32.4 |

## MEC Powder Bushing Chart continued (Units shown in grains)

| Bushing # | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 38A | 39 | 39A | 40 | 40A | 41 | 41A | 42 | 42A | 43 | 43A | 44 | 44A | 45 | 45A | 46 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bullseye | 24.6 | 25.5 | 26.4 | 27.3 | 28.2 | 29.1 | 30.1 | 31.0 | 31.9 | 32.8 | 33.7 | 34.7 | 35.7 | 36.9 | 38.1 | 39.4 | 40.7 | 42.0 | 43.3 | 44.6 | 46.0 | 47.4 | 48.8 |
| Red Dot | 19.2 | 19.9 | 20.6 | 21.3 | 21.9 | 22.7 | 23.3 | 24.1 | 24.7 | 25.2 | 25.9 | 26.6 | 27.3 | 27.9 | 28.4 | 29.3 | 29.9 | 30.8 | 31.5 | 32.1 | 32.7 | 33.4 | 34.1 |
| e³ | 18.5 | 19.5 | 20.5 | 21.0 | 21.8 | 22.3 | 22.8 | 23.2 | 23.8 | 24.5 | 25.4 | 26.0 | 26.6 | 27.0 | 27.5 | 28.8 | 30.0 | 31.1 | 32.2 | 33.1 | 33.9 | 34.8 | 35.9 |
| American Select | 20.4 | 21.1 | 21.8 | 22.6 | 23.3 | 24.1 | 24.9 | 25.7 | 26.5 | 27.3 | 28.1 | 28.9 | 29.8 | 30.7 | 31.5 | 32.4 | 33.3 | 34.2 | 35.2 | 36.4 | 37.0 | 38.0 | 39.0 |
| Green Dot | 19.6 | 20.3 | 21.0 | 21.7 | 22.4 | 23.2 | 23.9 | 24.7 | 25.4 | 26.2 | 27.0 | 27.8 | 28.6 | 29.4 | 30.3 | 31.1 | 32.0 | 32.8 | 33.7 | 34.6 | 35.5 | 36.4 | 37.4 |
| Unique | 21.7 | 22.5 | 23.2 | 24.0 | 24.8 | 25.6 | 26.5 | 27.3 | 28.2 | 29.0 | 29.9 | 30.8 | 31.7 | 32.6 | 33.5 | 34.5 | 35.4 | 36.4 | 37.4 | 38.4 | 39.4 | 40.4 | 41.4 |
| Herco | 22.9 | 23.7 | 24.5 | 25.3 | 26.2 | 27.0 | 27.9 | 28.8 | 29.7 | 30.6 | 31.5 | 32.4 | 33.4 | 34.3 | 35.3 | 36.3 | 37.3 | 38.3 | 39.3 | 40.4 | 41.4 | 42.5 | 43.6 |
| Blue Dot | 29.1 | 30.5 | 31.6 | 32.7 | 33.8 | 35.0 | 36.1 | 37.3 | 38.5 | 39.7 | 40.9 | 42.2 | 43.4 | 44.7 | 46.0 | 47.4 | 48.7 | 50.1 | 51.5 | 52.9 | 54.3 | 55.7 | 57.2 |
| 2400 | 34.5 | 35.7 | 36.9 | 38.1 | 39.4 | 40.7 | 42.0 | 43.3 | 44.6 | 46.0 | 47.4 | 48.8 | 50.2 | 51.6 | 53.1 | 54.6 | 56.1 | 57.6 | 59.2 | 60.7 | 62.3 | 63.9 | 65.6 |
| 410 | 33.6 | 34.7 | 35.9 | 37.0 | 38.1 | 39.3 | 40.6 | 42.0 | 43.3 | 45.0 | 46.7 | 48.0 | 49.2 | 50.4 | 51.7 | 53.0 | 54.8 | 56.3 | 57.4 | 58.0 | 59.2 | 60.4 | 62.0 |

# S A A M I

SPORTING ARMS AND AMMUNITION MANUFACTURERS' INSTITUTE, INC.
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# Properties and Storage of Smokeless Powder

Ammunition handloading has become increasingly popular in recent years. This information discusses properties of smokeless powder and offers recommendations for its storage.

This information is intended to increase the knowledge of all concerned individuals and groups regarding smokeless powder. The statements and recommendati made are not intended to supersede local, state, or Federal regulations. Proper authorities should be consulted on regulations for storage and use of smokeless pow in each specific community. A leaflet entitled *"Sporting Ammunition Primers: Properties, Handling, & Storage for Hand Loading"* supplements this information on smo less powder.

## Properties of Smokeless Powder

Smokeless powders, or propellants, are essentially mixtures of chemicals designed to burn under controlled conditions at the proper rate to propel a projectile from a gu

Smokeless powders are made in three forms:

1. Thin, circular flakes or wafers
2. Small cylinders
3. Small spheres

Single-base smokeless powders derive their main source of energy from nitrocellulose.

The energy released from double-base smokeless powders is derived from both nitrocellulose and nitroglycerin.

All smokeless powders are extremely flammable; by design, they are intended to burn rapidly and vigorously when ignited.

Oxygen from the air is not necessary for the combustion of smokeless powders since they contain sufficient built-in oxygen to burn completely, even in an enclosed sp such as the chamber of a firearm.

In effect, ignition occurs when the powder granules are heated above their ignition temperature. This can occur by exposing powder to:

1. A flame such as a match or primer flash.
2 An electrical spark or the sparks from welding, grinding, etc.
3. Heat from an electric hot plate or a fire directed against or near a closed container even if the powder itself is not exposed to the flame.

When smokeless powder burns, a great deal of gas at high temperature is formed. If the powder is confined, this gas will create pressure in the surrounding structu The rate of gas generation is such, however, that the pressure can be kept at a low level if sufficient space is available or if the gas can escape.

In this respect smokeless powder differs from blasting agents or high explosives such as dynamite or blasting gelatin, although smokeless powder may contain chem ingredients common to some of these products.

High explosives such as dynamite are made to detonate, that is, to change from solid state to gaseous state with evolution of intense heat at such a rapid rate that sh waves are propagated through any medium in contact with them. Such shock waves exert pressure on anything they contact, and, as a matter of practical considerati it is almost impossible to satisfactorily vent away from the effects of a detonation involving any appreciable quantity of dynamite.

Smokeless powder differs considerably in its burning characteristics from common "black powder."

Black powder burns essentially at the same rate out in the open (unconfined) as when in a gun.

When ignited in an unconfined state, smokeless powder burns inefficiently with an orange-colored flame. It produces a considerable amount of light brown noxi smelling smoke. It leaves a residue of ash and partially burned powder. The flame is hot enough to cause severe burns.

The opposite is true when it burns under pressure as in a cartridge fired in a gun. Then it produces very little smoke, a small glow, and leaves very little or no resi The burning rate of smokeless powder increases with increased pressure.

If burning smokeless powder is confined, gas pressure will rise and eventually can cause the container to burst. Under such circumstances, the bursting of a strong c tainer creates effects similar to an explosion.

For this reason, the Department of Transportation (formerly Interstate Commerce Commission) sets specifications for shipping containers for propellants and requ tests of loaded containers — under actual fire conditions — before approving them for use.

When smokeless powder in D.O.T. approved containers is ignited during such tests, container seams split open or lids pop off — to release gases and powder from c finement at low pressure.

## How to Check Smokeless Powder for Deterioration

Although modern smokeless powders are basically free from deterioration under proper storage conditions, safe practices require a recognition of the signs of dete ration and its possible effects.

Powder deterioration can be checked by opening the cap on the container and smelling the contents. Powder undergoing deterioration has an irritating acidic o (Don't confuse this with common solvent odors such as alcohol, ether and acetone.)

Check to make certain that powder is not exposed to extreme heat as this may cause deterioration. Such exposure produces an acidity which accelerates further reac and has been known, because of the heat generated by the reaction, to cause spontaneous combustion.

Never salvage powder from old cartridges and do not attempt to blend salvaged powder with new powder. Don't accumulate old powder stocks.

The best way to dispose of deteriorated smokeless powder is to burn it out in the open at an isolated location in small shallow piles (not over 1" deep). The quan burned in any one pile should never exceed one pound. Use an ignition train of slow burning combustible material so that the person may retreat to a safe distance be powder is ignited.

## Considerations for Storage of Smokeless Powder

Smokeless powder is intended to function by burning, so it must be protected against accidental exposure to flame, sparks or high temperatures.

For these reasons, it is desirable that storage enclosures be made of insulating materials to protect the powder from external heat sources.

Once smokeless powder begins to burn, it will normally continue to burn (and generate gas pressure) until it is consumed.

D.O.T. approved containers are constructed to open up at low internal pressures to avoid the effects normally produced by the rupture or bursting of a strong container.

Storage enclosures for smokeless powder should be constructed in a similar manner:

1. Of fire-resistant and heat-insulating materials to protect contents from external heat.
2. Sufficiently large to satisfactorily vent the gaseous products of combustion, which would result if the quantity of smokeless powder within the enclosure accidentally ignited.

If a small, tightly enclosed storage enclosure is loaded to capacity with containers of smokeless powder, the walls of the enclosure will expand or move outwards to release the gas pressure — if the powder in storage is accidentally ignited.

Under such conditions, the effects of the release of gas pressure are similar or identical to the effects produced by an explosion.

Hence only the smallest practical quantities of smokeless powder should be kept in storage, and then in strict compliance with all applicable regulations and recommendations of the National Fire Protection Association (reprinted at end of leaflet).

## Recommendations for Storage of Smokeless Powder

**STORE IN A COOL, DRY PLACE.** Be sure the storage area selected is free from any possible sources of excess heat and is isolated from open flame, furnaces, hot water heaters, etc. Do not store smokeless powder where it will be exposed to the sun's rays. Avoid storage in areas where mechanical or electrical equipment is in operation. Restrict from the storage areas heat or sparks which may result from improper, defective or overloaded electrical circuits.

**DO NOT STORE SMOKELESS POWDER IN THE SAME AREA WITH SOLVENTS, FLAMMABLE GASES, OR HIGHLY COMBUSTIBLE MATERIALS.**

**STORE ONLY IN DEPARTMENT OF TRANSPORTATION APPROVED CONTAINERS.**

Do not transfer the powder from an approved container into one which is not approved.

**DO NOT SMOKE IN AREAS WHERE POWDER IS STORED OR USED. PLACE APPROPRIATE "NO SMOKING" SIGNS IN THESE AREAS.**

**DO NOT SUBJECT THE STORAGE CABINETS TO CLOSE CONFINEMENT.**

**STORAGE CABINETS SHOULD BE CONSTRUCTED OF INSULATING MATERIALS AND WITH A WEAK WALL, SEAMS OR JOINTS TO PROVIDE AN EASY MEANS OF SELF-VENTING.**

**DO NOT KEEP OLD OR SALVAGED POWDERS.** Check old powders for deterioration regularly. Destroy deteriorated powders immediately.

**OBEY ALL REGULATIONS REGARDING QUANTITY AND METHODS OF STORING.** Do not store all your powders in one place. If you can, maintain separate storage locations. Many small containers are safer than one or more large containers.

**KEEP YOUR STORAGE AND USE AREA CLEAN.** Clean up spilled powder promptly. Make sure the surrounding area is free of trash or other readily combustible materials.

## 10-3 Smokeless Propellants.

**10-3.1** Quantities of smokeless propellants not exceeding 25 lb (11.3 kg) in shipping containers approved by the U.S. Department of Transportation, may be transported in a private vehicle.

**10-3.2** Quantities of smokeless propellants exceeding 25 lb (11.3 kg) but not exceeding 50 lb (22.7 kg), transported in a private vehicle, shall be transported in a portable magazine having wood walls of at least 1-in. (25.4-mm) nominal thickness.

**10-3.3** Transportation of more than 50 lb (22.7 kg) of smokeless propellants in a private vehicle is prohibited.

**10-3.4** Commercial shipments of smokeless propellants in quantities not exceeding 100 lb (45.4 kg) are classified for transportation purposes as flammable solids when packaged according to U.S. Department of Transportation Hazardous Materials Regulations (Title 49, Code of Federal Regulations, Part 173.197a), and shall be transported accordingly.

**10-3.5** Commercial shipments of smokeless propellants exceeding 100 lb (45.4 kg) or not packaged in accordance with the regulations cited in 10-3.4 shall be transported according to U.S. Department of Transportation regulations for Class B propellant explosives.

**10-3.6** Smokeless propellants shall be stored in shipping containers specified by U.S. Department of Transportation Hazardous Materials Regulations.

**10-3.7** Smokeless propellants intended for personal use in quantities not exceeding 20 lb (9.1 kg) may be stored in original containers in residences. Quantities exceeding 20 lb (9.1 kg), but not exceeding 50 lb (22.7 kg), may be stored in residences if kept in a wooden box or cabinet having walls of at least 1-in. (25.4-mm) nominal thickness.

**10-3.8** Not more than 20 lb (9.1 kg) of smokeless propellants, in containers of 1-lb (0.45-kg) maximum capacity, shall be displayed in commercial establishments.

**10-3.9** Commercial stocks of smokeless propellants shall be stored as follows:

(a) Quantities exceeding 20 lb (9.1 kg), but not exceeding 100 lb (45.4 kg), shall be stored in portable wooden boxes having walls of at least 1-in. (25.4 mm) thickness.

(b) Quantities exceeding 100 lb (45.4 kg), but not exceeding 800 lb (363 kg), shall be stored in nonportable storage cabinets having walls of at least 1-in. (25.4-mm) thickness. Not more than 400 lb (181 kg) may be stored in any one cabinet and cabinets shall be separated by a distance of at least 25 ft. (7.63 m) or by a fire partition having a fire resistance of at least 1 hour.

(c) Quantities exceeding 800 lb (363 kg), but not exceeding 5,000 lb (2268 kg), may be stored in a building if the following requirements are met:

1. The warehouse or storage room shall not be accessible to unauthorized personnel.
2. Smokeless propellant shall be stored in nonportable storage cabinets having wood walls at least 1 in. (25.4-mm) thick and having shelves with no more than 3 ft (0.92 m) separation between shelves.
3. No more than 400 lb (181 kg) shall be stored in any one cabinet.
4. Cabinets shall be located against walls of the storage room or warehouse with at least 40 ft (12.2 m) between cabinets.
5. Separation between cabinets may be reduced to 20 ft. (6.1 m) if barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades shall extend at least 10 ft (3 m) outward, shall be firmly attached to the wall, and shall be constructed of 1/4-in. (6.4-mm) boiler plate, 2-in. (51-mm) thick wood, brick, or concrete block.
6. Smokeless propellant shall be separated from materials classified by the U.S. Department of Transportation as flammable liquids, flammable solids, and oxidizing materials by a distance of 25 ft (7.63 m) or by a fire partition having a fire resistance of at least 1 hour.
7. The building shall be protected by an automatic sprinkler system installed according to NFPA 13, Standard for the Installation of Sprinkler Systems.

(d) Smokeless propellants not stored according to (a), (b) and (c) above shall be stored in a Type 4 magazine constructed and located according to Chapter 6.

## Some Publications on Reloading

These booklets, pertinent to reloading, are available from these and other sources.

| Title | Publisher |
|---|---|
| *Basic Rules for Reloading Safety* | *National Reloading Manufacturers Association*<br>*4905 S.W. Griffith Drive*<br>*Beaverton, OR 97005* |
| *NRA Guide to Reloading* | *NRA Bookservice*<br>*11250 Waples Mill Road*<br>*Fairfax, VA 22030* |
| *Speer Reloading Manual* | *ATK Ammunition & Related Products*<br>*Box 856*<br>*Lewiston, ID 83501* |
| *RCBS Reloading Guide* | *RCBS*<br>*Box 1919*<br>*Oroville, CA 95965* |
| *Hornady Handbook of Cartridge Reloading*<br>*Hornady Reloading Tools and Accessories* | *Hornady Mfg. Co.*<br>*Box 1848*<br>*Grand Island, NE 68801* |
| *Sierra Bullets Reloading Manual* | *Sierra*<br>*10532 Painter Avenue*<br>*Santa Fe Springs, CA 90670* |
| *Lyman Cast Bullet Handbook*<br>*Lyman Shotshell Handbook*<br>*Lyman Pistol and Revolver Handbook* | *Lyman Products*<br>*Middlefield, CT 06455* |
| *Nosler Reloading Manual* | *Nosler Bullets, Inc.*<br>*P.O. Box 671*<br>*Bend, OR 97709* |
| *How to Reload Shotshells and Why* | *MEC*<br>*715 South Street*<br>*Mayville, WI 53050* |
| *Ponsness-Warren Catalog* | *Ponsness-Warren*<br>*Box 8*<br>*Rathdrum, ID 83858* |
| *Handloaders' Digest*<br>*ABC's of Reloading* | *DBI Books*<br>*540 Frontage Road*<br>*Northfield, IL 60093* |
| *Modern Reloading* | *Lee Precision, Inc.*<br>*27 Highway "U"*<br>*Hartford, WI 53027* |

# ATK ALLIANT TECHSYSTEMS AMMUNITION & RELATED PRODUCTS

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The leader in innovative bullet technology, **Speer®** concentrates its development efforts on providing the most advanced bullets for handloaders and factory ammunition. The company also loads outstanding handgun hunting and pistol cartridges that serve sportsmen and law enforcement agencies worldwide.

RCBS

**RCBS®** produces high-quality reloading equipment and has for nearly 60 years. The company manufactures presses, dies, scales, bullet moulds and other reloading accessories to meet the most avid reloader's needs. It prides itself on outstanding customer service features the award winning Grand shotshell press—2002 NRA Shooting Illustrated Accessory of the Year.

Outers

**Outers®** is a leading manufacturer of gun-care chemicals solvents, and cleaning kits. Long a mainstay of gun cleaning tables everywhere, Outers is bringing innovative new products to gun cleaning and expanding its product line to include a variety of must-have cleaning products. It's how good, clean shots are made.

ESTATE CARTRIDGE

**Estate Cartridge®** manufactures high-quality shotgun ammunition at an affordable price. From target loads to buckshot and high velocity steel, Estate carries it all.

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**Champion®** target company provides the avid trap, skeet or sporting clays shooter with a wide variety of clay targets, target throwers, and paper and mechanical targets. For the shooter looking to hone their skills, Champion target is a one-stop destination.

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**Shooters Ridge™** rock steady bi-pods, gun vises, rifle and pistol rests comprise a family of rugged, hard working and affordable shot-steadying products for the hunter on the move.

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**Ram-Line®** stocks withstand the test of time, adding strength, accuracy and dependability to rifles and shotguns. For the seasoned hunter, beginning shooter or trained professional needing a highly visible law enforcement stock, Ram-Line® has the answer.

GUNSLICK BRAND

Innovative gun cleaning solutions are the specialty of **Gunslick®** brand cleaning products. Gunslick® has utilized advanced non-toxic chemistry to introduce a broad new lineup of innovative solutions that take the work out of gun care. Gunslick offers specific products for real gun cleaning needs.

WEAVER

**Weaver** provides rifle, pistol and shotgun scope users with a steady and strong way to securely fasten optics to a favorite firearm. Weaver rings set a standard by which mounting systems are still measured.

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