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EASTMAN
PHOTOGRAPHIC
PAPERS

EASTMAN KODAK COMPANY
Rochester N. Y.

KODABROM PAPER

KODABROM is an entirely new type of enlarging paper with a high speed, full-scale emulsion, and especially desirable processing advantages. It is made in seven grades, each having four evenly spaced contrasts. As easy to handle as Velox, it develops in from 45 seconds to 1½ minutes depending upon exposure. Its exposure latitude corresponds to its developing latitude, with no variation in the richness and brilliance of its fine black tones. It has unusual keeping quality and stability of contrast.

The developer recommended is D-72 with 1 to 2 dilution for rapid development. Greater dilution may be used with an increased amount of bromide. The D-52 developer may also be used.

Kodabrom is designed to meet the requirements of commercial, illustrative, and news photographers and photo finishers. It is supplied in the following grades and at the same list prices that apply to Vitava Opal, Illustrators' Special, and P. M. C. Bromide.

KODABROM SINGLE WEIGHT

GRADE F—Smooth, glossy, white

GRADE N—Smooth, lustre, white

KODABROM DOUBLE WEIGHT

GRADE E—Smooth, semi-matte, white

GRADE F—Smooth, glossy, white

GRADE G—Fine grain, lustre, natural white

GRADE N—Smooth, lustre, white

GRADE P—Fine grain, lustre, old ivory

All grades of Kodabrom are supplied in contrasts 1, 2, 3, and 4.

Eastman Photographic Papers



Eastman Kodak Company
Rochester, N. Y.
1937

EASTMAN PHOTOGRAPHIC PAPERS

THE purpose of this booklet is to acquaint the photographer with the various grades and surfaces of photographic papers, the work for which they are best suited, and the most practical formulas and working instructions for producing the best possible results.

The formulas recommended have been found by long experience to produce the most satisfactory results and should be used under all normal conditions. If unusual conditions suggest the need of a change in any formula, we shall be glad to be of assistance.

**Eastman Kodak Company,
Rochester, N. Y.**

VITAVA PAPERS

Vitava is a paper of the finest possible quality for distinctive portraiture. The three brands include many beautiful surface textures, all of which produce prints of pleasing tone with excellent gradation quality.

Vitava Athena

Athena is a paper of normal speed for contact printing from negatives of average contrast. It is the acknowledged standard of portrait quality, producing prints of warmth, brilliance, and fine gradation.

Vitava Athena Single Weight

A—Smooth, semi-matte, cream white

Vitava Athena Double Weight

B—Smooth, semi-matte, cream white

C—Smooth, matte, cream white

D—Rough, matte, natural white

E—Rough, matte, old ivory

E—Smooth, matte, old ivory

E—Semi-matte, smooth, old ivory

G—Fine grain, lustre, natural white

H—Fine grain, matte, natural white

L—Rough, lustre, natural white

P—Fine grain, lustre, old ivory

Q—Fine grain, matte, old ivory

W—Rough, semi-matte, old ivory

X—Silk, semi-matte, old ivory

Y—Silk, semi-matte, cream white

Vitava Opal

Opal has all of the warmth of tone and gradation scale of Athena with ample speed for enlarging. It truly reproduces the quality of the contact print—is ideal for making portrait projection prints from normal strength negatives or, with reduced lighting, for making contact prints.

Vitava Opal Single and Medium Weight

A—Smooth, semi-matte, cream white, single weight

F—Smooth, glossy, white, single weight

T—Fine grain, lustre, natural tint, medium weight

Vitava Opal Double Weight

- B—Smooth, semi-matte, cream white
- C—Smooth, matte, cream white
- D—Rough, matte, natural white
- E—Rough, matte, old ivory
- E—Semi-matte, old ivory
- G—Fine grain, lustre, natural white
- H—Fine grain, matte, natural white
- L—Rough, lustre, natural white
- P—Fine grain, lustre, old ivory
- Q—Fine grain, matte, old ivory
- W—Rough, semi-matte, old ivory
- Z—Tapestry, lustre, old ivory

Vitava Projection Paper

Projection is a fast paper for enlarging, having fine portrait quality but slightly less warmth of tone than Opal. It is supplied in two contrasts: No. 2 for normal negatives, No. 3 for slightly flat negatives. F—Double Weight is supplied only in No. 2 contrast.

Vitava Projection Single Weight

- A—Smooth, semi-matte, cream white
- F—Smooth, glossy, white

Vitava Projection Double Weight

- B—Smooth, semi-matte, cream white
- C—Smooth, matte, cream white
- D—Rough, matte, natural white
- E—Rough, matte, old ivory
- E—Smooth, matte, old ivory
- E—Semi-matte, smooth, old ivory
- F—Smooth, glossy, white
- G—Fine grain, lustre, natural white
- L—Rough, lustre, natural white
- P—Fine grain, lustre, old ivory
- W—Rough, semi-matte, old ivory
- X—Silk, semi-matte, old ivory
- Y—Silk, semi-matte, cream white

Azo

Azo is a contact printing paper having a quality and consistently maintained uniformity that have made it the dependable standard for commercial work and photo

finishing, while many of its surfaces are suitable for portraiture. Glossy Azo, grades F and C, are especially desirable for photo finishing. Azo is made in six degrees of contrast as shown below. In ordering, specify the contrast number as well as the letter indicating the desired surface.

- No. 0—For excessively contrasty negatives
- No. 1—For extreme contrast negatives
- No. 2—For average negatives
- No. 3—For flat negatives
- No. 4—For extremely flat negatives
- No. 5—For excessively thin or flat negatives

Azo Single Weight

- A—Smooth, matte, white, No. 2
- C—Smooth, glossy, pensé, Nos. 0, 1, 2, 3, 4, 5
- E—Smooth, semi-matte, white, Nos. 0, 1, 2, 3, 4, 5
- F—Smooth, glossy, white, Nos. 0, 1, 2, 3, 4, 5
- K—Smooth, semi-matte, cream white, Nos. 2, 3, 4

Azo Double Weight

- A—Smooth, matte, white, Nos. 1, 2
- AA—Smooth, lustre, cream white, Nos. 1, 2
- B—Smooth, semi-matte, cream white, Nos. 1, 2, 3
- D—Rough, matte, natural white, Nos. 1, 2
- E—Smooth, semi-matte, white, Nos. 0, 1, 2, 3, 4, 5
- F—Smooth, glossy, white, Nos. 0, 1, 2, 3, 4, 5
- G—Fine grain, lustre, natural white, Nos. 1, 2, 3, 5
- H—Fine grain, matte, natural white, Nos. 1, 2
- J—Smooth, lustre, old ivory, Nos. 1, 2, 3
- L—Rough, lustre, natural white, Nos. 1, 2
- P—Fine grain, lustre, old ivory, Nos. 1, 2, 3, 5
- Q—Fine grain, matte, old ivory, Nos. 1, 2
- X—Silk, semi-matte, old ivory, Nos. 1, 2, 3
- Y—Silk, semi-matte, cream white, Nos. 1, 2, 3

Azo Post Cards

- B—Nos. 1, 2, 3
- E—Nos. 1, 2, 3, 4
- F—Nos. 1, 2, 3, 4
- K—Nos. 2, 3

Ad-Type

Ad-Type is a smooth, single weight, natural surface paper of normal speed for contact printing. It has a slight lustre and folds without cracking. The commercial photographer's customers appreciate this quality which facilitates the mailing of photographs with sales letters. Ad-Type's six degrees of contrast corresponding to those of Azo, see page 5, make it possible to secure brilliant commercial prints from any type of negative. De Luxe Ad-Type is a finer product, warmer in tone, and coated on rich, old ivory stock.

Ad-Type Single Weight

Smooth, lustre, natural white surface, Nos. 0, 1, 2, 3, 4, 5

De Luxe Ad-Type

Smooth, natural surface, old ivory, Nos. 1, 2, 3, 4

De Luxe Grade F, Glossy

This is a high-grade, single weight glossy paper with a warm-toned emulsion, coated on a rich, old ivory stock. It produces pleasing prints having a warm black tone that harmonizes perfectly with the paper stock.

De Luxe Grade F Single Weight

F—(Nos. 1, 2, 3, 4) Smooth, glossy, old ivory

A New Velox

The improved Velox, with its six degrees of contrast, has an increased ability to fit the wide range of negatives produced by modern film emulsions. The contrasts are regularly spaced and the rich black tone is unaffected by the variations in exposure permitted by the improved paper's wide latitude. It develops rapidly and has the recognized stability of all Eastman sensitive materials.

Velox Single Weight

F—(Nos. 0, 1, 2, 3, 4, 5) Smooth, glossy, white

E—(Nos. 0, 1, 2, 3, 4, 5) Smooth, semi-matte, white

Velox Rapid for the Velox Rapid Printer

Velox Rapid is a faster paper than the regular Velox and is supplied in F, Glossy, and E, Velvet, in five degrees of contrast. It enables the finisher to deliver enlargements from miniature negatives of the same quality and fine black tone as contact Velox prints.

Velox Rapid Single Weight

F—(Nos. 0, 1, 2, 3, 4) Smooth, glossy, white

E—(Nos. 0, 1, 2, 3, 4) Smooth, semi-matte, white

Velox Rapid Double Weight

F—(Nos. 0, 1, 2, 3, 4) Smooth, glossy, white

E—(Nos. 0, 1, 2, 3, 4) Smooth, semi-matte, white

P. M. C. Bromide

P. M. C. Bromide is to enlarging papers what Azo is to contact printing papers. It is specially suited to commercial enlarging, having a wide range of adaptability, excellent quality, and uniformity that can be depended upon. A wide range of surfaces and contrasts fits it to all types of commercial or photo finishing enlarging. Its speed is such that high wattage projection lamps are not required. As a guide to the contrasts of P. M. C. Bromide, for negatives of average contrast, use *normal*; for soft negatives, use *medium*; for flat negatives, use *contrast*; and for extremely flat negatives, use *extra contrast*.

P. M. C. Bromide Single Weight

- No. 1—Smooth, glossy, white, *normal* and *contrast*
- No. 2—Smooth, semi-matte, white, *normal*, *medium*, *contrast*, and *extra contrast*
- No. 3—Rough, matte, white, *normal* and *contrast*
- No. 4—Smooth, glossy, pensé, *normal*
- No. 5—Smooth, matte, white, *normal*

P. M. C. Bromide Double Weight

- No. 6—Smooth, matte, white, *normal*
 - No. 7—Rough, matte, natural white, *normal*, *medium*, and *contrast*
 - No. 8—Rough, semi-matte, old ivory tint, *normal*, *medium*, and *contrast*
 - No. 9—Smooth, semi-matte, white, *normal*, *medium*, *contrast*, and *extra contrast*
 - No. 10—Smooth, glossy, white, *normal*, *medium*, *contrast*, and *extra contrast*
 - No. 11—Fine grain, lustre, natural white, *normal*, *medium*, *contrast*, and *extra contrast*
 - No. 12—Fine grain, lustre, old ivory, *normal*, *medium*, *contrast*, and *extra contrast*
- Post Cards—No. 10 Normal

Eastman News Bromide

As the name implies, Eastman News Bromide is suited to the quick-finish enlarging methods used in news photography. It is a physically hardened glossy paper made to withstand the rough treatment necessary in producing rush prints. It has about the same speed, and its contrasts may be compared to those of P. M. C. Bromide.

Eastman News Bromide Single Weight

Smooth, glossy, white, *normal*, *medium*, *contrast*, and *extra contrast*

Eastman Translite Enlarging

Translite Paper is used for producing photographic transparencies which are viewed by transmitted light in some form of illuminator. It is a duo-coated paper, having a sensitive emulsion on both sides of a translucent stock. When exposed and developed, two images appear, one on the printing surface and one which has printed through the paper stock on the back. When placed in an illuminator, the double image gives the print wonderful depth and luminosity. Color placed on the back of the print adds to its attractiveness and gets the attention which appeals to advertisers. Eastman Translite Enlarging Paper has approximately the same speed as Vitava Opal. This paper gives best results with negatives of average contrast.

Eastman Translite Enlarging Single Weight
Smooth, semi-matte, white

Solar Bromide Line Solar Bromide

Both of these papers are single weight and of normal speed for contact printing. They have a dead matte surface and may be readily folded without cracking. They are strictly commercial papers. Solar is supplied in *normal*, Line Solar in *normal* for average negatives, and *contrast* for flat negatives.

Solar Bromide Single Weight
Smooth, matte, white, for contact printing

Line Solar Bromide Single Weight
Smooth, matte, white, *normal* and *contrast*, for contact printing

Insurance Bromide

This is similar in surface to Line Solar but is a fast paper of great contrast for enlarging. Also suitable for use with scientific recording devices.

Insurance Bromide Single Weight
Smooth, matte, white, A—(75 gram) B—(95 gram) R—(100 gram)

Eastman Kodaline Bromide

Kodaline Bromide is used for making prints and paper negatives of great contrast.

Eastman Kodaline Bromide Single Weight
Smooth, semi-matte, white

Eastman Direct Positive Paper

This paper, in rolls, is used in automatic or semiautomatic machines. The exposure makes a negative which, in processing, is changed to a positive. Supplied in semi-gloss. It is also available in cut sizes.

Illustrators' Special

This paper has a full scale, brilliant emulsion of Vitava Opal quality and speed; an excellent medium for reproduction purposes. It is supplied in single and double weight at the same price as Vitava Opal.

Illustrators' Special Single and Double Weight

Smooth, semi-matte, white

Eastman Portrait Proofing Paper

Eastman Portrait Proofing Paper is a single weight developing paper of sufficient speed for projection printing. By reducing the wattage of printing machines, it may also be used for fast contact printing. It has a stock of natural white in two surfaces; a fine felt weave, matte and a lustre surface. This paper is also supplied in 500-sheet packages at 10% less than the gross price rate.

Eastman Proof Paper

This is a gelatin printing-out paper which requires sunlight or an extremely brilliant artificial light for printing proofs.

Eastman Proof Paper Single Weight

Smooth, white, semi-matte and glossy.

Eastman Safety Translite Film

A double coated matte film having approximately the same speed as Vitava Projection Paper. It is a fine transparency material for display purposes.

Kotava Safety Positive Film

A positive emulsion on a medium weight ivory tinted film base producing fine carbon effects. It is ideal either for sepia-toned prints or oil-colored miniatures. Its speed is about the same as Vitava Opal.

Safelights for Papers

In processing papers it is advisable to use a Safelight which will give the most brilliant illumination that is safe for developing and reasonable handling of the material, but any Safelight will fog sensitive material which is exposed for too long a time. Wratten and Kodak Safelight Lamps, which give indirect light, permit the use of a 25-watt lamp bulb. In lamps giving direct light, the bulb should never be more than 10 watts. For contact printing papers, the Series 00 or 0A Wratten Safelight is recommended. For the faster papers, used for enlarging, a Series 0 or 0A Safelight may be used except for Insurance Bromide for which the Series 2 is more suitable. For Direct Positive Papers a Series 2 Safelight should be used.

PROCESSING OF PAPERS DEVELOPMENT

The following formulas are those which will produce the best possible results with Eastman Papers. The chemicals should be dissolved in the order given and the solutions used according to the instructions given after each formula.

Immerse each exposed sheet of paper face up, separately and completely, in the developer recommended, using a tray of ample size so that every portion of the print is covered quickly and evenly by the solution. Break any air bells that form on the print by rubbing the fingers lightly over the surface while the print is immersed.

Prolonged development produces yellow highlights and stains. Too short development tends to give flat prints.

Agitate the prints during development, keeping them under the solution as much as possible; this will avoid uneven development and trouble from stains and spots. Discard the developer as soon as the solution shows any tendency to form general stain.

[Formula
D-52]

Elon-Hydroquinone Developer

For prepared powders, see page 29

For Vitava Athena, Projection, Opal, Illustrators' Special, De Luxe Grade F, De Luxe Ad-Type, Translite, Portrait Proofing Paper, Kotava Safety Positive Film, Safety Translite Film, and Portrait Prints on Azo

Stock Solution

To make:	32 Ounces Avoirdupois	1 Liter Metric	1 Gallon Avoirdupois
Water (about 125° F.) (52° C.)	16 ounces	500.0 cc.	64 ounces
Elon	22 grains	1.5 grams	88 grains
Sodium Sulphite, desiccated (E. K. Co.)	34 ounce	22.5 grams	3 ounces
Hydroquinone	90 grains	6.3 grams	360 grains
Sodium Carbonate, desiccated (E. K. Co.)	1/2 ounce	15.0 grams	2 ounces
Potassium Bromide	22 grains	1.5 grams	88 grains
Cold water to make	32 ounces	1.0 liter	1 gallon

Dissolve the chemicals in the order given.

For use, dilute as follows:

For Vitava Athena, Projection, Opal, Illustrators' Special, Eastman Portrait Proofing Paper, De Luxe Grade F, De Luxe Ad-Type, Kotava Safety Positive Film, Safety Translite Film, and portrait prints on Azo, use stock solution 1 part, water 1 part.

For Translite, use full strength stock solution.

Develop not less than 1 1/2 minutes at 70° F. (21° C.).

Note: This developer contains the minimum quantity of bromide. More bromide may be added if warmer tones are desired.

[Formula
D-72]

Elon-Hydroquinone Developer

For prepared powders, see page 29

For Velox, Velox Rapid, Azo, Ad-Type, De Luxe Ad-Type, De Luxe Grade F, and P. M. C., News, Kodaline, Solar, Line Solar, and Insurance Bromide Papers

Stock Solution

To make:	32 Ounces Avoirdupois	1 Liter Metric	1 Gallon Avoirdupois
Water (about 125° F.) (52° C.)	16 ounces	500.0 cc.	64 ounces
Elon	45 grains	3.1 grams	180 grains
Sodium Sulphite, desiccated (E. K. Co.)	1 1/2 ounces	45.0 grams	6 ounces
Hydroquinone	175 grains	12.0 grams	1 oz. 260 grains
Sodium Carbonate, desiccated (E. K. Co.)	2 1/4 ounces	67.5 grams	9 ounces
Potassium Bromide	27 grains	1.9 grams	1/4 ounce
Water to make	32 ounces	1.0 liter	1 gallon

Dissolve the chemicals in the order given.

(Continued on page 11)

For use, dilute as follows:

For Insurance, Solar, and Line Solar Bromide, stock solution 1 part, water 1 part.
 For Velox, Velox Rapid, Azo, Ad-Type, De Luxe Ad-Type, De Luxe Grade F, and Kodaline Bromide, stock solution 1 part, water 2 parts.
 For colder tones on Azo and Ad-Type, dilute 1 to 1.
 For still colder tones on Azo and Ad-Type, use Formula D-73.
 For portrait work on Azo and Ad-Type, use Formula D-52.
 For P. M. C. and News Bromide, stock solution 1 part, water 4 parts.
 If higher contrast is desired with Bromide Paper, use stock solution 1 part, water 2 parts, or stock solution 1 part, water 1 part. With the 1 to 1 dilution, add 15 grains of potassium bromide per 32 ounces of developer (1 gram per liter).
 Develop Velox, Velox Rapid, Azo, and Ad-Type 45 seconds at 70° F. (21° C.).
 Develop P. M. C., News, and Kodaline Bromide not less than 1½ minutes at 70° F. (21° C.).
 Develop Solar, Insurance, and Line Solar Bromide 30 seconds at 70° F. (21° C.).

Elon-Hydroquinone Developer

[Formula
D-73]

For prepared powders, see page 29

For Blue-Black Tones on Ad-Type and Azo Papers for Photo Finishing and Commercial Work

Stock Solution

To make:	32 Ounces Avoirdupois	1 Liter Metric	1 Gallon Avoirdupois
Water (about 125° F.) (52° C.)	16 ounces	500.0 cc.	64 ounces
Elon	40 grains	2.8 grams	160 grains
Sodium Sulphite, desiccated (E. K. Co.)	1 oz. 140 grains	40.0 grams	5¼ ounces
Hydroquinone	155 grains	10.8 grams	1 oz. 185 grains
Sodium Carbonate, desiccated (E. K. Co.)	2½ ounces	75.0 grams	10 ounces
Potassium Bromide	12 grains	0.8 gram	48 grains
Water to make	32 ounces	1.0 liter	1 gallon

Dissolve the chemicals in the order given.

For use, dilute as follows:

Take stock solution 1 part, water 2 parts.
 Develop for 45 seconds at 70° F. (21° C.).

IMPORTANCE OF RINSING

We strongly recommend rinsing prints for at least 5 seconds between developing and fixing in the following acetic acid rinse bath. The action of this bath instantly checks development and prevents staining troubles. It also permits a larger number of prints to be fixed before the fixing bath need be discarded because it prevents neutralization of the acid in the fixing bath by the alkaline developer.

Acid Rinse Bath

[Formula
SB-1]

	Avoirdupois	Metric
Water	32 ounces	1 liter
*Acetic Acid (28% pure) (E. K. Co.)	1½ fluid oz.	48 cc.

*To make 28% acetic acid from glacial acetic acid, dilute three parts of glacial acetic acid with eight parts of water.

Move and separate the prints while in the rinse bath to insure thorough access of the solution to all parts of every print. With a one or two seconds' drain after development, the equivalent of about twenty 8 x 10-inch prints may be processed per 32 ounces (1 liter) of the SB-1 bath before it becomes alkaline and therefore useless. It is good practice to use a fresh bath for each batch of prints.

FIXING

Fixation is of the utmost importance as upon this depends, in a large measure, the permanence of the photographic print. Prepare the fixing bath with as much care as is given to the preparation of the developing solution.

(Continued on page 12)

When the prints have been rinsed carefully, immerse them in the following fixing bath for 10 to 15 minutes.

The time necessary for fixation of prints depends largely upon the thoroughness of access of the fixing bath to the emulsion. Rapid fixing can best be obtained by thorough agitation.

Keep all prints well immersed and face up, otherwise bleaching of the image may occur. Trouble from stains, blisters, and air bells can be prevented if the prints are kept moving.

[Formula
F-1]

Fixing Bath

For all Papers and Safety Translite and Kotava Safety
Positive Films

	Avoirdupois	Metric
Water.....	64 ounces	2 liters
Sodium Thiosulphate (Hypo).....	16 ounces	480 grams
When thoroughly dissolved, add the entire quantity of the following hardening solution:		
Water (about 125° F.) (52° C.).....	5 ounces	160 cc.
Sodium Sulphite, desiccated (E. K. Co.).....	1 ounce	30 grams
*Acetic Acid (28% pure) (E. K. Co.).....	3 fluid oz.	96 cc.
Potassium Alum (E. K. Co.).....	1 ounce	30 grams

Dissolve the chemicals in the order named, following the instructions below for Formula F-1a. Cool the hardener solution after mixing and add it slowly to the cool hypo solution while stirring the hypo solution rapidly.

The above fixing solution, prepared in accordance with instructions, will fix approximately sixty 8 x 10-inch prints or their equivalent in other sizes if the acid rinse bath, SB-1, is used between development and fixation, or about one-half that number of prints if only a water rinse is used. The temperature of the bath should be kept as near 70° F. (21° C.) as possible.

Note: After fixing Translite prints, place for five minutes in a bath made by diluting one part of Formula F-1 with four parts of water. This treatment prevents blisters.

[Formula
F-1a]

Stock Hardener

	Avoirdupois	Metric	
Water (about 125° F.) (52° C.).....	56 ounces	1700 cc.	212.5
Sodium Sulphite, desiccated (E. K. Co.).....	8 ounces	240 grams	80
*Acetic Acid (28% pure) (E. K. Co.).....	24 fluid oz.	750 cc.	93.75
Potassium Alum (E. K. Co.).....	8 ounces	240 grams	80
Cold water to make.....	1 gallon	4 liters	500

Dissolve the chemicals in the order given.

Dissolve the sulphite completely before adding the acetic acid. After the sulphite-acid solution has been mixed thoroughly, add the potassium alum with constant stirring. When the alum is dissolved entirely, add cold water to make up the final volume. A fixing bath is quickly made by adding one part of this hardener to four parts of cool hypo solution, or 32 ounces (1 liter) of hardener to 1 gallon (4 liters) of cool hypo solution, containing 2 pounds of hypo to the gallon of water.

*To make 28% acetic acid from glacial acetic acid, dilute three parts of glacial acetic acid with eight parts of water.

The following hardener is recommended for Bromide Papers when they have a tendency to stick to the belts of heated dryers.

[Formula
SH-2]

Supplementary Hardener

Solution A

	Avoirdupois	Metric
Water (about 125° F.) (52° C.).....	32 ounces	1 liter
Sodium Sulphite, desiccated (E. K. Co.).....	1½ ounces	45 grams
*Acetic Acid (28% pure) (E. K. Co.).....	2 fluid oz.	64 cc.
Potassium Alum (E. K. Co.).....	4½ ounces	135 grams
Water to make.....	64 ounces	2 liters

*To make 28% acetic acid from glacial acetic acid, dilute three parts of glacial acetic acid with eight parts of water.

Solution B

Hot water (about 160° F.) (71° C.).....	16 ounces	500 cc.
Borax, granular (E. K. Co.).....	1 ounce	30 grams
When dissolved, add cold water to make.....	64 ounces	2 liters

Dissolve the chemicals in the order given.

Then cool and add slowly to Solution A with constant stirring. If these directions are followed, a clear solution will be obtained, but if the borax solution, while still warm, is added to Solution A, an insoluble, white precipitate will form.

Fix prints in the regular fixing bath, wash thoroughly, and place in the above hardener for 5 or 10 minutes. Then wash thoroughly and remove surplus water before drying. This bath should not be used if prints are to be toned by the Hypo-Alum or Re-development method because it has a detrimental effect upon the tone.

WASHING

After the prints are thoroughly fixed, they should be washed for at least one hour in running water which flows rapidly enough to replace the water in the washing tray 10 to 12 times per hour. Prints should be separated several times during this period. If running water is not available, they should be given twelve changes of water from one tray to another, allowing about five minutes for each change.

For greatest permanence after fixing, place the prints for 5 minutes in a fresh fixing bath and then wash for at least 2 hours under the foregoing conditions.

When running water is used for washing, the stream should not be allowed to fall directly on the prints as it may cause breaks in the fibre of the paper. Place a tumbler or graduate in the washing tray and allow the water to overflow from it into the tray. We recommend the use of the Eastman Automatic Tray Siphon as the most efficient means for washing prints in the shortest possible time.

To determine when the prints are entirely free from hypo, use the following test:

Hypo Test Solution

	[Formula HT-1a]	
	Avoirdupois	Metric
Distilled water	6 ounces	180.0 cc.
Potassium Permanganate (E. K. Co.)	4 grains	0.3 gram
Sodium Hydroxide (Caustic Soda)	8 grains	0.6 gram
Water (distilled) to make	8 ounces	250.0 cc.

To make the test, take 4 ounces (125 cc.) of distilled water in a clear glass and add $\frac{1}{4}$ dram (1 cc.) of the permanganate-caustic soda solution. Pour $\frac{1}{2}$ ounce (15 cc.) of this diluted solution into a clean 1-ounce graduate. Then take six 4 x 5-inch prints or their equivalent from the wash water and allow the water from them to drip for 30 seconds into the $\frac{1}{2}$ ounce of test solution. If a small percentage of hypo is present, the violet color will turn orange in about 30 seconds, and become colorless in about 1 minute. In such case the prints should be further washed until no color change is produced by the test, which proves that the hypo has been eliminated.

Note: Oxidizable organic matter, if present in the water, reacts with the permanganate solution and changes the color in the same manner as does hypo. The water should therefore be tested as follows:

When the first test is made with prints from the wash water, a similar test should be made with the tap water. Add a volume of tap water, equal to the wash water drained from the prints, to a second test solution prepared as above from pure water. If the sample to which tap water has been added remains a violet color, this indicates the absence of organic matter and it will be unnecessary to repeat the test. If the color is changed slightly by the tap water, the presence of hypo in the prints will be shown by the relative color change of the two samples. For example, if the tap water sample turned pink and the wash water sample became yellow, it would indicate the presence of hypo, while if both samples remained the same shade this would indicate the absence of hypo.

DRYING

When washing is complete, the prints should be removed from the wash water and placed face down on a clean glass or oilcloth-covered mounting board to drain off the excess moisture. They may then be dried on cheesecloth stretchers, between blotters, or on a belt or drum dryer. If any prints are imperfectly washed, these materials become contaminated with hypo which is then transferred to the well washed prints.

Prints on cheesecloth stretchers will not dry perfectly flat so it will be desirable to go over the backs of them with a soft sponge or tuft of cotton which has been moistened with water or equal parts of alcohol and water. Very little moisture will produce the desired results. The prints should then be placed between blotters or cardboard under heavy pressure. They will be flat in two or three hours.

If blotters are used for drying purposes, the prints should be drained thoroughly, placed between blotters and weighted down for five or ten minutes. They should then be transferred to fresh, dry blotters and this process should be repeated until the prints are perfectly dry. To insure even drying and to prevent cockling, the prints should be kept under a heavy weight while drying.

The Eastman Print Straightener is one of the simplest devices ever offered the photographer for straightening prints. It is operated by a motor, and prints fed into the machine are carried by a belt through water vapor, over a straightener, and dropped into a basket, flat and smooth. Either single or double weight prints are straightened as fast as they can be fed to the belt. The degree of moisture is easily regulated and the prints do not crack.

NELSON GOLD TONING BATH

The advantage of this toning bath is that a variety of excellent brown tones may be obtained by varying the time of toning. The prints may be removed from the bath at any time when a satisfactory color is obtained. For average results, toning will require 5 to 7 minutes for Vitava Athena, 12 to 15 minutes for Vitava Opal, and 15 to 20 minutes for Vitava Projection Papers. After fixing, wash the prints for a few minutes before placing them in the toning solution.

[Formula
T-21]

Nelson Gold Toning Bath

For Sepia Tones on Vitava Athena and Opal Papers

Solution No. 1

	Avoirdupois	Metric
Warm water (about 125° F.) (52° C.)	1 gallon	4.0 liters
Sodium Thiosulphate (Hypo)	2 pounds	960.0 grams
Ammonium Persulphate	4 ounces	120.0 grams

Dissolve the hypo completely before adding the ammonium persulphate. Stir the bath vigorously while adding the ammonium persulphate. If the bath does not turn milky, increase the temperature until it does.

Prepare the following solution and add it, including precipitate, slowly to the hypo-persulphate solution while stirring the latter rapidly. *The bath must be cool when these solutions are combined.*

Cold water	2 ounces	64.0 cc.
Silver Nitrate (Crystals) (E. K. Co.)	75 grains	5.2 grams
Sodium Chloride (Table salt)	75 grains	5.2 grams

Note: *The silver nitrate should be dissolved completely before adding the sodium chloride.*

(Continued on page 15)

Stock Solution No. 2

	Avoirdupois	Metric
Water	8 ounces	250.0 cc.
Gold Chloride	15 grains	1.0 gram

For use, add 4 ounces (125 cc.) of Solution No. 2 slowly to Solution No. 1 while stirring the latter rapidly. The bath should not be used until it has become cold and has formed a sediment. Then pour off the clear liquid for use. Pour the clear solution into a tray standing in a water bath and heat to 110° F. (43° C.). The temperature, when toning, should be between 100° and 110° F. (38° and 43° C.). Dry prints should be soaked thoroughly in water before toning.

Keep at hand a black-and-white print for comparison during toning. Prints should be separated at all times to insure even toning. When the desired tone is obtained, rinse the prints in cold water. After all have been toned, return them to the fixing bath for five minutes, then wash for one hour in running water.

The bath should be revived at intervals by the addition of gold solution No. 2. The quantity to be added will depend upon the number of prints toned and the time of toning. For example, when toning to a warm brown, add 1 dram (4 cc.) of gold solution after each fifty 8 x 10-inch prints or their equivalent per gallon (4 liters) have been toned. Fresh solution may be added from time to time to keep the bath up to the proper volume.

Hypo-Alum Toning Bath

[Formula]

For Sepia Tones on Vitava and Azo Papers

	Avoirdupois	Metric
Cold water	90 ounces	2800.0 cc.
Sodium Thiosulphate (Hypo)	16 ounces	480.0 grams

Dissolve thoroughly, then add the following solution:

Hot water (about 160° F.) (71° C.)	20 ounces	640.0 cc.
Potassium Alum (E. K. Co.)	4 ounces	120.0 grams

Then add the following solution (including precipitate) slowly to the above hypo-alum solution while stirring the latter rapidly.

Cold water	2 ounces	64.0 cc.
Silver Nitrate (Crystals) (E. K. Co.)	60 grains	4.2 grams
Sodium Chloride (Table salt)	60 grains	4.2 grams
After combining above solutions, add water to make.	1 gallon	4.0 liters

Note: The silver nitrate should be dissolved completely before adding the sodium chloride, and immediately afterwards the solution, including the milky white precipitate, should be added to the hypo-alum solution as directed.

For use, pour into a tray standing in a water bath and heat to 120° F. (49° C.). Never use the bath if the temperature is above 125° F. (52° C.) or blisters and stains will result. Prints will tone in 12 to 15 minutes. The bath will be milky white if properly mixed.

Prints should be immersed thoroughly and separated occasionally, especially during the first few minutes, to insure even toning. The black prints should be a shade dark and developed from 1½ to 2 minutes without forcing, to produce good sepia tones. After prints are toned, sponge off any sediment in warm water and wash for one hour in running water. Dry prints should be thoroughly soaked in water before toning.

Sepia Re-developer

[Formula]

For Velox and Bromide Papers

No. 1—Stock Bleaching Solution

	Avoirdupois	Metric
Potassium Ferricyanide (E. K. Co.)	2½ ounces	75.0 grams
Potassium Bromide	2½ ounces	75.0 grams
Potassium Oxalate	6½ ounces	195.0 grams
*Acetic Acid (28% pure) (E. K. Co.)	1¼ fluid oz.	40.0 cc.
Water	64 ounces	2.0 liters

*To make 28% acetic acid from glacial acetic acid, dilute three parts of glacial acetic acid with eight parts of water.

No. 2—Stock Re-developing Solution

Sodium Sulphide (not sulphite)	1½ ounces	45.0 grams
Water	16 ounces	500.0 cc.

Dissolve the chemicals in the order given.

For use, dilute as follows:

For Bleaching Bath, use Stock Solution No. 1, 1 part; water, 1 part.

For Re-developer, use Stock Solution No. 2, 1 part; water, 8 parts.

The print to be re-developed should be washed thoroughly. Place it in the bleaching bath (65° F.) (18° C.) and allow it to remain until only faint traces of the halftones are left and the black of the shadows has disappeared. This will take about one minute.

Rinse thoroughly in clean, cold water.

Place in re-developing solution (65° F.) (18° C.) until original detail returns. This will require about 30 seconds. Give the print an immediate and thorough rinse; then immerse for five minutes in a bath composed of F-1a Hardener, 1 ounce (32 cc.), water, 8 ounces (250 cc.). Remove the print from this bath and wash for one-half hour in running water. The color and gradation of the finished print will not be affected by the use of the hardener.

Note: Do not use trays for bleaching that have any iron exposed. This is very important as exposed iron may be a cause of blue spots.

SOFT EFFECTS IN ENLARGEMENTS

A very pleasing softness or diffusion may be obtained by using the Eastman Projection Printer or Eastman Auto-Focus Enlarger with Diffusing Discs. Each disc produces an unvarying degree of softness. No extra exposure need be given when the Diffusing Discs are used as the volume of light is not diminished.

MOUNTING

The most effective means of mounting is with the Kodak Dry Mounting Press and Dry Mounting Tissue. Prints mounted by this process even on lightweight mounts will not cockle or curl, but will retain their good appearance after they leave the photographer's hands. Mounting is exceedingly simple. A piece of mounting tissue the size of the print is tacked to its back with a hot tacking iron. The print is trimmed, placed on the mount, and a loose corner of the tissue tacked to the mount to hold it in place. A few seconds in the hot press mounts the print smoothly and permanently. The 11 x 14-inch Kodak Dry Mounting Press will accommodate all sizes of prints up to 18 x 22 inches, or larger, the larger sizes being mounted by two or more impressions.

PROCESSING DIRECT POSITIVE PAPER

This paper is used for making negatives which, by the six operations of the reversal process, are changed into positive prints. Correct exposure for the negative determines the quality of the print; therefore a fixed light source and a definite exposure are required. Underexposure will produce a dark picture, while overexposure produces pictures which are too light.

The reversal process includes exposure, development of the negative, bleaching the negative, clearing, re-exposure, development of the positive. Fixing is not essential, but it gives the print a slightly increased brilliance. Fixed prints should be washed for ten minutes in running water. If not fixed, prints should be washed for four or five minutes. The Direct Positive emulsion is coated on a waterproof support which permits rapid drying. An inexpensive electric hair dryer can be used effectively to facilitate drying. The Series 2 Wratten Safelight should be used for workroom illumination.

A satisfactory division of time in the different solutions is as follows: Developing, 45 seconds to 1 minute; bleaching, 30 seconds; clearing, 30 seconds; developing or re-developing, 30 seconds; fixing, 30 seconds. It is necessary to wash the prints thoroughly in running water for at least 15 seconds between the different solutions. When the solution D-88 is used for developing a black-and-white positive, it is necessary to expose the paper to artificial light directly after clearing. If convenient, the white light may be turned on as soon as the prints are placed in the clearing bath. If brown tones are desired, the sulphide re-developer may be used, instead of developer D-88, directly after clearing. It will then be unnecessary to use white light.

Developer

		[Formula D-88]
	1 Gallon	4 Liters
	Avoirdupois	Metric
Water (about 125° F.) (52° C.)	96 ounces	3.0 liters
Sodium Sulphite, desiccated (E. K. Co.)	6 1/2 ounces	195.0 grams
Hydroquinone	3 3/4 ounces	97.5 grams
*Boric Acid (Crystals)	3/4 ounce	22.5 grams
Potassium Bromide	150 grains	10.5 grams
Sodium Hydroxide (Caustic Soda) (E. K. Co.)	3 1/4 ounces	97.5 grams
Water to make	1 gallon	4.0 liters

The caustic soda should be dissolved in a small volume of water, in a separate container, and added to the solution which has been made by dissolving the chemicals in the order given. Water should then be added to make one gallon (4 liters). When dissolving the caustic soda, stir constantly so that the heat generated will not cause the solution to boil with explosive violence and spatter the hot caustic on the hands and face which would produce serious burns. Use the developer full strength at a temperature of 70° F. (21° C.).

*Use crystalline boric acid as specified. Powdered boric acid dissolves with difficulty.

Bleaching Solution

		[Formula R-9]
Solution A	Avoirdupois	Metric
Water	1 gallon	4.0 liters
Potassium Bichromate	1 1/4 ounces	37.5 grams
Sulphuric Acid, C. P. (E. K. Co.)	1 1/2 fluid oz.	48.0 cc.

Use full strength at 65° to 70° F. (18° to 21° C.). For more rapid bleaching, the amounts of acid and bichromate may be increased.

Clearing Solution

Solution B	Avoirdupois	Metric
Sodium Sulphite, desiccated (E. K. Co.)	12 ounces	360.0 grams
Water	1 gallon	4.0 liters

Use full strength at 65° to 70° F. (18° to 21° C.).

Re-developer[Formula
D-88]

Use same as for first development, full strength at a temperature of from 65° to 70° F. (18° to 21° C.). If sepia tones are desired, use the following re-developer directly after clearing:

Sulphide Re-developer[Formula
T-19]

	Avoirdupois	Metric
Sodium Sulphide (not sulphite)	300 grains	20.0 grams
Water	32 ounces	1.0 liter

Fixing Bath[Formula
F-1]

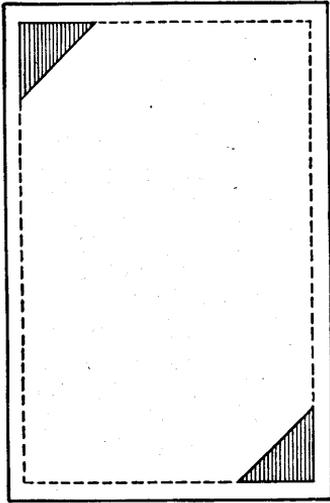
This formula will be found on page 12. Fixing is not essential to this process but will add somewhat greater brilliance to the black-and-white print. *It is important to wash for at least 10 minutes* to insure removal of the fixing bath from the print. If the sulphide bath (Formula T-19) has been used, fixation is unnecessary.

EMBOSSING PRINTS

Sheet prints which have a die-sunk line embossed around the edge of the picture are exceptionally attractive and are very easily made. Any double weight paper is suitable for embossing.

The prints should have wide white margins; and standards of size should be adopted, as a mask and form must be made for each size.

The embossed line for a print, say 6 x 9 inches, on an 11 x 14-inch sheet of paper, should be about $\frac{3}{8}$ of an inch from top, sides, and bottom of the picture image, making the embossing form $6\frac{3}{4}$ x $9\frac{3}{4}$ inches. The form should be the same thickness as the print so an old print may be used for this purpose.



Cut it $6\frac{3}{4}$ x $9\frac{3}{4}$ inches and then draw a line $\frac{3}{8}$ of an inch from top, sides, and bottom, as shown in the diagram. Cut out the corners as indicated by dark triangles. These openings are to locate the corners of the print when adjusting the form for embossing.

A square of plate glass with a light beneath makes an excellent embossing table. Place the form on the plate glass over the light. Place the print over the form, locating the corners of the picture in the triangular openings. Hold the print firmly and run an Eastman Print Embosser over the back, following

the edge of the form. If the pressure of the embossing tool is even, the result is a distinct plate-sunk line that adds to the print's attractiveness.

Before prints are embossed, their backs should be moistened evenly to the edges with a solution of equal parts of wood alcohol and water. They should then be placed between blotters under pressure. If not allowed to become bone-dry, the prints will lie flat and emboss without cracking.

GENERAL INFORMATION

In using photographic formulas, one should have a fairly thorough knowledge of the chemicals used. Elon and hydroquinone are reducing agents with distinctly different characteristics. Elon, alone, produces great softness and detail. Hydroquinone develops contrast. Together they produce a balanced result. Used alone these chemicals develop very slowly, so sodium carbonate is added to increase their developing energy. This makes them oxidize more readily, and sodium sulphite is therefore added as a preservative to prevent oxidation, fog, and stains. Potassium bromide is added to prevent the fogging of prints and to keep the whites clear. Additional bromide adds warmth, especially to the tone of Vitava or Azo prints.

Developers used according to formulas cannot be improved upon for all general work, and no changes in the relative proportions of the chemicals are advised unless unusual conditions make them necessary. Such conditions will not arise if pure water and pure chemicals are used at recommended temperatures.

Prints should be developed immediately after exposure as the latent image gradually fades with time and it becomes impossible to develop an image of full strength. This is especially true if prints are exposed to moisture.

In compounding all formulas, mix chemicals in the order named and dissolve each chemical thoroughly before adding the next. This is just as essential with fixing baths as with developers.

Prints should always be given at least a five seconds' rinse in the acid rinse bath (SB-1) before fixing. This stops development immediately and neutralizes the developing solution in the print. If the rinse bath is not used, the print carries alkaline developer into the fixing bath. This alkali rapidly neutralizes the acid in the fixing bath, causing it to precipitate a white sludge which produces stains. Prints fixed in such a bath are not permanent and may eventually turn brown or yellow.

The temperature of the fixing bath should never exceed 70° F. (21° C.). A record should be kept of the number of prints fixed in a bath so that one will know when to discard it. If the rinse bath SB-1 is used, 64 ounces of fixing bath will fix approximately 200—4 x 6, or 60—8 x 10 prints or their equivalent in other sizes. If only a water rinse is used, a 64-ounce bath will fix about 100—4 x 6, or 30—8 x 10 prints or their equivalent. These figures have been established by careful tests and when this number of prints has been fixed, the bath should be discarded and a fresh one used. Improperly fixed or washed prints will eventually turn yellow or fade. The thoroughness of washing should be checked at regular intervals by using the Hypo Test Formula HT-1a, page 13.

There will be no trouble in making prints of the finest quality if the foregoing instructions are carefully followed.

Stain Remover

[Formula
S-5]

To Remove Stains from Hands

Solution No. 1

	Avoirdupois	Metric
Water.....	32 ounces	1.0 liter
Potassium Permanganate.....	¼ ounce	7.5 grams

Solution No. 2

Water.....	32 ounces	1.0 liter
Sodium Bisulphite.....	16 ounces	480.0 grams

Rub the hands with a small amount of No. 1 Solution, rinse in water, then rub with the No. 2 Solution which removes the stain.

Tray Cleaner

[Formula
TC-1]

To Remove Oxidation Stains from Trays

	Avoirdupois	Metric
Water.....	32 ounces	1.0 liter
Potassium Bichromate.....	3 ounces	90.0 grams
Sulphuric Acid, C. P. (E. K. Co.).....	3 fluid oz.	96.0 cc.

Pour a small quantity of this solution into the tray to be cleaned. Rinse it about until it has access to all parts of the tray. Pour out and wash tray thoroughly six or eight times until all traces of cleaning solution disappear. This will remove developer oxidation stains, silver stains, and some dye stains, and is a very useful cleaning agent.

WEIGHTS AND MEASURES—Conversion Tables

In photographic practice, solids are weighed and liquids are measured either by the Avoirdupois or the Metric system.

The following tables of weights and measures give all the equivalent values required for converting photographic formulas:

Avoirdupois to Metric Weight

Pounds	Ounces	Grains	Grams	Kilograms
1	16	7000	453.6	0.4536
0.0625	1	437.5	28.35	0.02835
		1	0.0648	
	0.03527	15.43	1	0.001
2.205	35.27	15430	1000	1

U. S. Liquid to Metric Measure

Gallons	Quarts	Ounces (Fluid)	Drams (Fluid)	Cubic Centimeters	Liters
1	4	128	1024	3785	3.785
0.25	1	32	256	946.3	0.9463
		1	8	29.57	0.02957
0.000975	0.0039	0.125	1 (60 mins.)	3.697	0.003697
		0.03381	0.2705	1	0.001
0.2642	1.057	33.81	270.5	1000	1

Solid Conversion Values

Grains per 32 oz. multiplied by 0.06847 =grams per liter

Ounces per 32 oz. multiplied by 29.96 =grams per liter

Pounds per 32 oz. multiplied by 479.3 =grams per liter

Grams per liter multiplied by 14.60 =grains per 32 oz.

Grams per liter multiplied by 0.03338 =ounces per 32 oz.

Grams per liter multiplied by 0.002086 =pounds per 32 oz.

Liquid Conversion Values

(U. S. System)

Ounces (fluid) per 32 oz. multiplied by 31.25=cubic centimeters per liter.

Cubic centimeters per liter multiplied by 0.032=ounces (fluid) per 32 oz.

Note: This table does not apply when converting British Imperial to metric measure.

PAPER PRICES

Vitava Athena Single Weight

Sizes	1 Dz.	2 Dz.	½ Gro.	Gro.	Sizes	1 Dz.	½ Gro.	Gro.
3 $\frac{7}{8}$ x 5 $\frac{1}{2}$	...	\$ .50	....	\$2.40	8 x11	\$1.10	\$ 5.25	\$ 9.70
3 $\frac{3}{4}$ x 6	...	.60	....	2.50	8 $\frac{1}{2}$ x11	1.15	5.50	10.25
4 x 6	...	.60	....	2.65	8 x12	1.15	5.70	10.50
4 $\frac{1}{4}$ x 6 $\frac{1}{2}$	...	.65	....	3.10	9 x11	1.15	5.85	10.75
4 $\frac{3}{4}$ x 6 $\frac{1}{2}$	...	.65	....	3.50	10 x12	1.35	6.95	13.05
5 x 7	\$.40	...	\$2.10	3.90	10 x14	1.50	8.00	15.20
5 x 8	.50	...	2.50	4.50	11 x14	1.65	8.75	16.60
5 $\frac{1}{2}$ x 7 $\frac{3}{4}$	.60	...	2.60	4.75	12 x15	2.00	10.35	19.55
6 x 8	.60	...	2.90	5.35	12 x16	2.10	11.00	20.70
6 x10	.75	...	3.60	6.60	12 x17	2.15	11.60	21.95
6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	.65	...	3.35	6.10	12 x20	2.60	13.60	25.80
7 x 9	.75	...	3.75	6.95	14 x17	2.50	13.35	25.40
7 x10	.85	...	4.10	7.70	16 x20	3.25	17.70	34.00
7 x11	.85	...	4.50	8.35	18 x22	4.00	21.65	41.85
7 $\frac{1}{2}$ x 9 $\frac{1}{2}$	.85	...	4.25	7.70	18 x24	4.30	23.45	45.45
8 x10	.85	...	4.70	8.70	20 x24	4.75	26.05	50.45
8 x10 $\frac{1}{2}$	.90	...	5.00	9.25				

All other sizes to be considered as special. Special sizes furnished at prices 10% greater than the next larger listed size for sizes up to 5 x 7, and 5% greater than the next larger listed size for sizes larger than 5 x 7.

	10-ft. Rolls	10-yd. Rolls		10-ft. Rolls	10-yd. Rolls
20 inches wide	\$2.45	\$5.90	40 inches wide	\$4.60	\$11.45

Supplied in all standard Azo roll sizes. Special narrow width rolls will be furnished when ordered in sufficient quantities to take the full width of a roll 40 inches wide, minimum length, 30 feet.

Vitava Athena Double Weight and Translite Enlarging Paper

Sizes	1 Dz.	2 Dz.	½ Gro.	Gro.	Sizes	1 Dz.	½ Gro.	Gro.
3 $\frac{7}{8}$ x 5 $\frac{1}{2}$	...	\$ .65	....	\$ 3.00	8 x11	\$1.40	\$ 6.55	\$12.15
3 $\frac{3}{4}$ x 6	...	.75	....	3.15	8 $\frac{1}{2}$ x11	1.45	6.90	12.80
4 x 6	...	.75	....	3.30	8 x12	1.45	7.15	13.15
4 $\frac{1}{4}$ x 6 $\frac{1}{2}$	...	.80	....	3.90	9 x11	1.45	7.30	13.45
4 $\frac{3}{4}$ x 6 $\frac{1}{2}$	...	.80	....	4.40	10 x12	1.70	8.70	16.30
5 x 7	\$.50	...	\$2.65	4.90	10 x14	1.90	10.00	19.00
5 x 8	.65	...	3.15	5.65	11 x14	2.05	10.95	20.75
5 $\frac{1}{2}$ x 7 $\frac{3}{4}$	.75	...	3.25	5.95	12 x15	2.50	12.95	24.45
6 x 8	.75	...	3.65	6.70	12 x16	2.65	13.75	25.90
6 x10	.95	...	4.50	8.25	12 x17	2.70	14.50	27.45
6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	.80	...	4.20	7.65	12 x20	3.25	17.00	32.25
7 x 9	.95	...	4.70	8.70	14 x17	3.15	16.70	31.75
7 x10	1.05	...	5.15	9.65	16 x20	4.05	22.15	42.50
7 x11	1.05	...	5.65	10.45	18 x22	5.00	27.05	52.30
7 $\frac{1}{2}$ x 9 $\frac{1}{2}$	1.05	...	5.30	9.65	18 x24	5.40	29.30	56.75
8 x10	1.05	...	5.90	10.90	20 x24	5.95	32.55	63.05
8 x10 $\frac{1}{2}$	1.15	...	6.25	11.55				

All other sizes to be considered as special. Special sizes furnished at prices 10% greater than the next larger listed size for sizes up to 5 x 7, and 5% greater than the next larger listed size for sizes larger than 5 x 7.

	10-ft. Rolls	10-yd. Rolls		10-ft. Rolls	10-yd. Rolls
20 inches wide	\$2.95	\$7.35	40 inches wide	\$5.55	\$14.20

Supplied in all standard Azo roll sizes. Special narrow width rolls will be furnished when ordered in sufficient quantities to take the full width of a roll 40 inches wide, minimum length, 30 feet.

Vitava Projection, Opal A, F, and T, and P. M. C. Bromide and Illustrators' Special Single Weight

Sizes	1 Dz.	2 Dz.	½ Gro.	Gro.	Sizes	1 Dz.	½ Gro.	Gro.
3 7/8 x 5 1/2	...	\$.40	....	\$2.05	8 x 11	\$.90	...	\$ 4.45 \$ 8.20
3 3/4 x 6	...	.50	....	2.15	8 1/2 x 11	1.00	...	4.65 8.65
4 x 6	...	.50	....	2.25	8 x 12	1.00	...	4.80 8.90
4 1/4 x 6 1/2	...	.55	....	2.60	9 x 11	1.00	...	4.95 9.10
4 3/4 x 6 1/2	...	.55	....	2.95	10 x 12	1.15	...	5.85 11.00
5 x 7	\$.35	...	\$1.75	3.30	10 x 14	1.25	...	6.75 12.85
5 x 8	.40	...	2.10	3.80	11 x 14	1.40	...	7.40 14.05
5 1/2 x 7 3/4	.50	...	2.20	4.00	12 x 15	1.70	...	8.75 16.50
6 x 8	.50	...	2.45	4.50	12 x 16	1.75	...	9.30 17.50
6 x 10	.65	...	3.05	5.55	12 x 17	1.85	...	9.80 18.55
6 1/2 x 8 1/2	.55	...	2.80	5.15	12 x 20	2.20	...	11.50 21.80
7 x 9	.65	...	3.15	5.85	14 x 17	2.10	...	11.30 21.45
7 x 10	.70	...	3.45	6.50	16 x 20	2.75	...	14.95 28.70
7 x 11	.70	...	3.80	7.05	18 x 22	3.40	...	18.25 35.30
7 1/2 x 9 1/2	.70	...	3.60	6.50	18 x 24	3.60	...	19.80 38.35
8 x 10	.75	...	3.95	7.35	20 x 24	4.00	...	22.00 42.60
8 x 10 1/2	.80	...	4.25	7.85				

All other sizes to be considered as special. Special sizes furnished at prices 10% greater than the next larger listed size for sizes up to 5 x 7, and 5% greater than the next larger listed size for sizes larger than 5 x 7.

	10-ft. Rolls	10-yd. Rolls		10-ft. Rolls	10-yd. Rolls
20 inches wide	\$2.00	\$4.85	40 inches wide	\$3.75	\$9.35

Supplied in all standard Azo roll sizes. Special narrow width rolls will be furnished when ordered in sufficient quantities to take the full width of a roll 40 inches wide, minimum length, 30 feet.

Vitava Projection, Opal, Illustrators' Special, and P. M. C. Bromide Double Weight Papers

Sizes	1 Dz.	2 Dz.	½ Gro.	Gro.	Sizes	1 Dz.	½ Gro.	Gro.
3 7/8 x 5 1/2	...	\$.50	....	\$2.55	8 x 11	\$1.15	...	\$ 5.55 \$10.25
3 3/4 x 6	...	.65	....	2.65	8 1/2 x 11	1.25	...	5.80 10.80
4 x 6	...	.65	....	2.80	8 x 12	1.25	...	6.00 11.15
4 1/4 x 6 1/2	...	.70	....	3.25	9 x 11	1.25	...	6.20 11.40
4 3/4 x 6 1/2	...	.70	....	3.70	10 x 12	1.45	...	7.30 13.75
5 x 7	\$.45	...	\$2.20	4.15	10 x 14	1.55	...	8.45 16.05
5 x 8	.50	...	2.65	4.75	11 x 14	1.75	...	9.25 17.55
5 1/2 x 7 3/4	.65	...	2.75	5.00	12 x 15	2.15	...	10.95 20.65
6 x 8	.65	...	3.05	5.65	12 x 16	2.20	...	11.65 21.90
6 x 10	.80	...	3.80	6.95	12 x 17	2.30	...	12.25 23.20
6 1/2 x 8 1/2	.70	...	3.50	6.45	12 x 20	2.75	...	14.40 27.25
7 x 9	.80	...	3.95	7.30	14 x 17	2.65	...	14.15 26.80
7 x 10	.90	...	4.30	8.15	16 x 20	3.45	...	18.70 35.90
7 x 11	.90	...	4.75	8.80	18 x 22	4.25	...	22.80 44.15
7 1/2 x 9 1/2	.90	...	4.50	8.15	18 x 24	4.50	...	24.75 47.95
8 x 10	.95	...	4.95	9.20	20 x 24	5.00	...	27.50 53.25
8 x 10 1/2	1.00	...	5.30	9.80				

All other sizes to be considered as special. Special sizes furnished at prices 10% greater than the next larger listed size for sizes up to 5 x 7, and 5% greater than the next larger listed size for sizes larger than 5 x 7.

	10-ft. Rolls	10-yd. Rolls		10-ft. Rolls	10-yd. Rolls
20 inches wide	\$2.50	\$6.30	40 inches wide	\$4.75	\$12.15

Supplied in all standard Azo roll sizes. Special narrow width rolls will be furnished when ordered in sufficient quantities to take the full width of a roll 40 inches wide, minimum length, 30 feet.

Eastman Portrait Proofing Paper

Prices are the same as for single weight Azo Paper. Also supplied in 500-sheet packages at 10% less than the gross price rate.

Velox and *Azo Papers Single Weight

Sizes	2 Dz.	Gro.	Sizes	1 Dz.	½ Gro.	Gro.
1 7/8 x 2 3/4	\$.15	\$.50	5 x 7	\$.25	\$ 1.25	\$ 2.35
2 1/4 x 3 1/4	.20	.60	5 x 8	.30	1.50	2.70
2 1/2 x 3 1/2	.20	.70	5 1/2 x 7 3/4	.35	1.55	2.85
2 1/2 x 3 3/4	.20	.75	6 x 8	.35	1.75	3.20
2 1/2 x 4 1/4	.20	.80	6 x 10	.45	2.15	3.95
2 3/4 x 3 3/4	.20	.80	6 1/2 x 8 1/2	.40	2.00	3.65
2 3/4 x 4 1/2	.20	.90	7 x 9	.45	2.25	4.15
2 7/8 x 4 7/8	.25	1.00	7 x 10	.50	2.45	4.60
3 x 4	.25	.90	7 x 11	.50	2.70	5.00
3 x 4 3/4	.25	1.05	7 1/2 x 9 1/2	.50	2.55	4.60
3 1/8 x 5 1/8	.25	1.15	8 x 10	.55	2.80	5.20
3 1/4 x 4 1/4	.25	1.00	8 x 10 1/2	.55	3.00	5.55
3 1/4 x 4 1/2	.25	1.05	8 x 11	.65	3.15	5.80
3 1/4 x 4 7/8	.25	1.15	8 1/2 x 11	.70	3.30	6.15
3 1/4 x 5 1/2	.25	1.25	8 x 12	.70	3.40	6.30
3 3/8 x 4 7/8	.25	1.15	9 x 11	.70	3.50	6.45
3 1/2 x 4 1/2	.25	1.10	10 x 12	.80	4.15	7.80
3 1/2 x 5 1/2	.30	1.35	10 x 14	.90	4.80	9.10
3 1/2 x 5 3/4	.30	1.40	11 x 14	1.00	5.25	9.95
3 3/4 x 4 3/4	.25	1.25	12 x 15	1.20	6.20	11.70
3 3/4 x 6	.35	1.55	12 x 16	1.25	6.60	12.40
3 7/8 x 5 1/2	.30	1.45	12 x 17	1.30	6.95	13.15
4 x 5	.30	1.40	12 x 20	1.55	8.15	15.45
4 1/4 x 5 1/2	.35	1.60	14 x 17	1.50	8.00	15.20
4 x 6	.35	1.60	16 x 20	1.95	10.60	20.35
4 1/4 x 6 1/2	.40	1.85	18 x 22	2.40	12.95	25.05
4 1/2 x 5 1/2	.40	1.65	18 x 24	2.60	14.05	27.20
4 3/4 x 6 1/2	.40	2.10	20 x 24	2.85	15.60	30.20

***Azo Papers Double Weight**

Sizes	2 Dz.	Gro.	Sizes	1 Dz.	½ Gro.	Gro.
1 7/8 x 2 3/4	\$.20	\$.65	5 x 7	\$.30	\$ 1.55	\$ 2.95
2 1/4 x 3 1/4	.25	.75	5 x 8	.40	1.90	3.40
2 1/2 x 3 1/2	.25	.90	5 1/2 x 7 3/4	.45	1.95	3.55
2 1/2 x 3 3/4	.25	.95	6 x 8	.45	2.20	4.00
2 1/2 x 4 1/4	.25	1.00	6 x 10	.55	2.70	4.95
2 3/4 x 3 3/4	.25	1.00	6 1/2 x 8 1/2	.50	2.50	4.55
2 3/4 x 4 1/2	.25	1.15	7 x 9	.55	2.80	5.20
2 7/8 x 4 7/8	.30	1.25	7 x 10	.65	3.05	5.75
3 x 4	.30	1.15	7 x 11	.65	3.40	6.25
3 x 4 3/4	.30	1.30	7 1/2 x 9 1/2	.65	3.20	5.75
3 1/8 x 5 1/8	.30	1.45	8 x 10	.70	3.50	6.50
3 1/4 x 4 1/4	.30	1.25	8 x 10 1/2	.70	3.75	6.95
3 1/4 x 4 1/2	.30	1.30	8 x 11	.80	3.95	7.25
3 1/4 x 4 7/8	.30	1.45	8 1/2 x 11	.90	4.15	7.70
3 1/4 x 5 1/2	.30	1.55	8 x 12	.90	4.25	7.90
3 3/8 x 4 7/8	.30	1.45	9 x 11	.90	4.40	8.05
3 1/2 x 4 1/2	.30	1.40	10 x 12	1.00	5.20	9.75
3 1/2 x 5 1/2	.40	1.70	10 x 14	1.15	6.00	11.40
3 1/2 x 5 3/4	.40	1.75	11 x 14	1.25	6.55	12.45
3 3/4 x 4 3/4	.30	1.55	12 x 15	1.50	7.75	14.65
3 3/4 x 6	.45	1.95	12 x 16	1.55	8.25	15.50
3 7/8 x 5 1/2	.40	1.80	12 x 17	1.65	8.70	16.45
4 x 5	.40	1.75	12 x 20	1.95	10.20	19.30
4 1/4 x 5 1/2	.45	2.00	14 x 17	1.90	10.00	19.00
4 x 6	.45	2.00	16 x 20	2.45	13.25	25.45
4 1/4 x 6 1/2	.50	2.30	18 x 22	3.00	16.20	31.30
4 1/2 x 5 1/2	.50	2.05	18 x 24	3.20	17.55	34.00
4 3/4 x 6 1/2	.50	2.60	20 x 24	3.55	19.50	37.75

*Sizes under 4 x 6 supplied only in Grades E and F. Grade P in two-dozen and gross packages supplied in size 4 1/4 x 5 1/2.

All other sizes to be considered as special. Special sizes furnished at prices 10% greater than the next larger listed size for sizes up to 5 x 7, and 5% greater than the next larger listed size for sizes larger than 5 x 7.

Azo in 500-Sheet Packages

Single and Double Weight

	Single Weight		GRADE E (Nos. 0, 1, 2, 3, 4, 5)
GRADE A (No. 2)			GRADE F (Nos. 0, 1, 2, 3, 4, 5)
GRADE C (Nos. 0, 1, 2, 3, 4, 5)			GRADE G (Nos. 1, 2)
GRADE E (Nos. 0, 1, 2, 3, 4, 5)			GRADE H (Nos. 1, 2)
GRADE F (Nos. 0, 1, 2, 3, 4, 5)			GRADE J (Nos. 1, 2, 3)
GRADE K (Nos. 2, 3, 4)			GRADE L (Nos. 1, 2)
	Double Weight		GRADE P (Nos. 1, 2, 3, 5)
GRADE A (Nos. 1, 2)			GRADE Q (Nos. 1, 2)
GRADE AA (Nos. 1, 2)			GRADE X (Nos. 1, 2)
GRADE B (Nos. 1, 2, 3)			GRADE Y (Nos. 1, 2)
GRADE D (Nos. 1, 2)			

Velox in 500-Sheet Packages

Single Weight Only

Glossy (Nos. 0, 1, 2, 3, 4, 5) Velvet (Nos. 0, 1, 2, 3, 4, 5)

Sizes	Single Weight	Double Weight	Sizes	Single Weight	Double Weight
1 7/8 x 2 3/4	\$1.60	\$2.00	3 3/8 x 4 7/8	\$3.65	\$4.60
2 1/4 x 3 1/4	1.90	2.40	3 1/2 x 4 1/2	3.50	4.40
2 1/2 x 3 1/2	2.20	2.75	3 1/2 x 5 1/2	4.25	5.30
2 1/2 x 3 3/4	2.30	2.90	3 1/2 x 5 3/4	4.40	5.50
2 1/2 x 4 1/4	2.50	3.15	3 3/4 x 4 3/4	3.95	4.95
2 3/4 x 3 3/4	2.50	3.15	3 3/4 x 6	4.90	6.15
2 3/4 x 4 1/2	2.85	3.55	3 7/8 x 5 1/2	4.55	5.70
2 7/8 x 4 7/8	3.15	3.95	4 x 5	4.40	5.50
3 x 4	2.85	3.55	4 1/4 x 5 1/2	5.05	6.30
3 x 4 3/4	3.30	4.15	4 x 6	5.05	6.30
3 1/8 x 5 1/8	3.60	4.50	4 1/4 x 6 1/2	5.85	7.30
3 1/4 x 4 1/4	3.15	3.95	4 1/2 x 5 1/2	5.20	6.50
3 1/4 x 4 1/2	3.30	4.15	4 3/4 x 6 1/2	6.60	8.25
3 1/4 x 4 7/8	3.60	4.50	5 x 7	7.40	9.25
3 1/4 x 5 1/2	3.95	4.95			

All other sizes to be considered as special. Special sizes up to 5 x 7 furnished at prices 10% greater than the next larger listed size.

Azo Paper in Rolls Velox Paper in Rolls

Single Weight Only

Rolls	Single Weight	Double Weight	Rolls	Single Weight	Double Weight
1 3/8 in. x 200 ft.	\$2.50	\$3.30	8 in. x 50 ft.	\$2.55	\$3.15
2 1/8 in. x 200 ft.	3.35	4.50	8 in. x 100 ft.	4.65	5.80
2 3/8 in. x 200 ft.	3.50	4.65	10 in. x 50 ft.	3.05	3.80
2 5/8 in. x 200 ft.	3.60	4.80	10 in. x 100 ft.	5.70	7.10
5 in. x 100 ft.	3.45	4.30	20 in. x 10 ft.	1.50	1.80
6 in. x 50 ft.	2.15	2.60	20 in. x 10 yds.	3.55	4.50
6 in. x 100 ft.	3.55	4.40	40 in. x 10 ft.	2.80	3.40
6 1/2 in. x 50 ft.	2.25	2.75	40 in. x 10 yds.	6.85	8.70
6 1/2 in. x 100 ft.	3.90	4.85			

Special narrow width rolls will be furnished when ordered in sufficient quantities to take the full width of a roll 40 inches wide, minimum length, 30 feet.

Azo Paper in 250-, 500-, and 1,000-Foot Rolls

Width of Roll	Single Weight 500 ft.	Single Weight 1,000 ft.	Double Weight 250 ft.	Double Weight 500 ft.	Width of Roll	Single Weight 500 ft.	Single Weight 1,000 ft.	Double Weight 250 ft.	Double Weight 500 ft.
1 7/8	\$ 5.50	\$10.35	\$4.00	\$ 7.30	4 1/4	\$11.10	\$21.25	\$ 7.65	\$14.50
2 1/4	6.45	12.05	4.65	8.40	4 1/2	11.70	22.40	8.00	15.05
2 1/2	7.05	13.20	5.00	9.15	4 3/4	12.25	23.55	8.40	15.75
2 5/8	7.30	13.75	5.20	9.50	4 7/8	12.55	24.10	8.60	16.15
2 3/4	7.60	14.35	5.40	9.90	5 1/8	13.10	25.25	8.95	16.95
2 7/8	7.90	14.90	5.55	10.25	5 1/4	13.40	25.80	9.15	17.35
3 1/8	8.45	16.05	5.95	11.00	5 1/2	13.95	27.00	9.50	18.05
3 1/4	8.75	16.60	6.10	11.35	5 3/4	14.55	28.15	9.85	18.75
3 1/2	9.35	17.80	6.50	12.10	6 1/8	15.40	29.85	10.45	19.85
3 5/8	9.65	18.35	6.70	12.45	6 1/2	16.25	31.55	11.00	20.95
3 3/4	9.90	18.95	6.85	12.85	6 3/4	16.85	32.70	11.35	21.70
3 7/8	10.20	19.50	7.05	13.20					

Splicing allowances: 250-ft. roll, 2 splices; 500-ft. roll, 3 splices; 1,000-ft. roll, 4 splices.

Wound on strawboard core 1 1/4" in diameter. When ordered on special core, extra charge to be made to cover cost of same.

Rolls of width not listed, but length listed above, when ordered in quantities sufficient to take the full width of a 40-inch roll, will be supplied at the price of the next wider listed size increased by 10%.

De Luxe Grade F, Glossy

Sizes	2 Dz.	Gro.	500 Sheets	Sizes	1 Dz.	1/2 Gro.	Gro.	500 Sheets	
1 7/8 x 2 3/4	\$.20	....	\$.55	\$1.70	5 x 7	\$.30	\$ 1.35	\$ 2.50	\$7.80
2 1/4 x 3 1/4	.25	....	.65	2.00	5 x 8	.35	1.60	2.85	....
2 1/2 x 3 1/2	.25	....	.75	2.35	5 1/2 x 7 3/4	.40	1.65	3.00	....
2 1/2 x 3 3/4	.25	....	.80	2.45	6 x 8	.40	1.85	3.40	....
2 1/2 x 4 1/4	.25	....	.85	2.65	6 x 10	.50	2.30	4.15	....
2 3/4 x 3 3/4	.25	....	.85	2.65	6 1/2 x 8 1/2	.45	2.10	3.85	....
2 3/4 x 4 1/2	.25	....	.95	3.00	7 x 9	.50	2.40	4.40	....
2 7/8 x 4 7/8	.30	....	1.05	3.35	7 x 10	.55	2.60	4.85	....
3 x 4	.30	....	.95	3.00	7 x 11	.55	2.85	5.25	....
3 x 4 3/4	.30	....	1.10	3.50	7 1/2 x 9 1/2	.55	2.70	4.85	....
3 1/8 x 5 1/8	.30	....	1.25	3.80	8 x 10	.60	2.95	5.50	....
3 1/4 x 4 1/4	.30	....	1.05	3.35	8 x 10 1/2	.60	3.15	5.85	....
3 1/4 x 4 1/2	.30	....	1.10	3.50	8 x 11	.70	3.35	6.10	....
3 1/4 x 4 7/8	.30	....	1.25	3.80	8 1/2 x 11	.75	3.50	6.50	....
3 1/4 x 5 1/2	.30	....	1.35	4.15	8 x 12	.75	3.60	6.65	....
3 3/8 x 4 7/8	.30	....	1.25	3.85	9 x 11	.75	3.70	6.80	....
3 1/2 x 4 1/2	.30	....	1.20	3.70	10 x 12	.85	4.40	8.20	....
3 1/2 x 5 1/2	.35	....	1.45	4.50	10 x 14	.95	5.05	9.60	....
3 1/2 x 5 3/4	.35	....	1.50	4.65	11 x 14	1.05	5.55	10.45	....
3 3/4 x 4 3/4	.30	....	1.35	4.15	12 x 15	1.30	6.55	12.30	....
3 3/4 x 6	.40	....	1.65	5.15	12 x 16	1.35	6.95	13.05	....
3 7/8 x 5 1/2	.35	....	1.55	4.80	12 x 17	1.40	7.30	13.85	....
4 x 5	.35	....	1.50	4.65	12 x 20	1.65	8.60	16.25	....
4 1/4 x 5 1/2	.40	....	1.70	5.30	14 x 17	1.60	8.40	16.00	....
4 x 6	.40	....	1.70	5.30	16 x 20	2.05	11.15	21.40	....
4 1/4 x 6 1/2	.45	....	1.95	6.15	18 x 22	2.55	13.60	26.30	....
4 1/2 x 5 1/2	.45	....	1.75	5.50	18 x 24	2.75	14.75	28.60	....
4 3/4 x 6 1/2	.45	....	2.25	6.95	20 x 24	3.00	16.40	31.75	....

Ad-Type Paper

Sizes	Gross	500 Sheets	Sizes	Gross	250 Sheets
8 x 10	\$5.00	\$15.65	14x17	\$14.60	\$ 24.10
8 1/2 x 11	5.90	18.45	16x20	19.60	32.35
9 x 11	6.20	19.40	18x24	26.10	43.05
10 x 12	7.50	23.45	20x24	29.00	47.85
11 x 14	9.55	29.85	30x40	74.35	122.65

All standard sizes or packages smaller than listed will be supplied at Azo Single Weight prices. All standard sizes larger than 8 x 10, appearing in the Azo list, will be considered standard for Ad-Type. Also supplied in all standard Azo roll sizes. All other sizes to be considered as special. Special sizes furnished at prices 10% greater than the next larger listed size for sizes up to 5 x 7, and 5% greater than the next larger listed size for sizes larger than 5 x 7.

De Luxe Ad-Type

Sizes	Gross	500 Sheets	Sizes	Gross	250 Sheets
8 x10.....	\$ 5.25	\$16.45	14x17.....	\$15.35	\$ 25.35
8½x11.....	6.20	19.40	16x20.....	20.60	34.00
9 x11.....	6.55	20.50	18x24.....	27.45	45.30
10 x12.....	7.90	24.70	20x24.....	30.45	50.25
11 x14.....	10.05	31.45	30x40.....	78.10	128.85

Velox Rapid

Single Weight			Double Weight		
Size	Gross	500 Sheets	Size	Gross	500 Sheets
3¼x4½.....	\$1.05	\$3.30	3¼x4½.....	\$1.30	\$4.15

All standard sizes appearing in the Azo Single and Double Weight lists will be supplied on special order. Prices will be the same as for Single and Double Weight Azo, respectively.

Eastman News Bromide

Sizes	Dozen	½ Gro.	Gro.	Sizes	Dozen	½ Gro.	Gro.
5 x 7	\$.35	\$1.75	\$ 3.30	14x17	\$2.10	\$11.30	\$21.45
6½x 8½	.55	2.80	5.15	16x20	2.75	14.95	28.70
8 x10	.75	3.95	7.35	18x22	3.40	18.25	35.30
10 x12	1.15	5.85	11.00	18x24	3.60	19.80	38.35
11 x14	1.40	7.40	14.05	20x24	4.00	22.00	42.60

All standard sizes, appearing in the P. M. C. Bromide list, will be considered standard for News Bromide. Special sizes furnished at prices 5% greater than the next larger listed size for sizes larger than 5 x 7. Supplied in all standard Azo roll sizes.

500-sheet Packages

5x7..\$10.30 6x8..\$14.05 6½x8½..\$16.10 7x9..\$18.30 8x10..\$22.95

10-ft. Rolls		10-yd. Rolls	
20 inches wide	\$2.00	40 inches wide	\$3.75
	\$4.85		\$9.35

Special narrow width rolls will be furnished when ordered in sufficient quantities to take the full width of a roll 40 inches wide, minimum length, 30 feet.

Solar and Line Solar Bromide

Sizes	Gro.	500 Sheets	Sizes	Gro.	250 Sheets
6½x 8½.....	\$2.90	\$ 9.10	14x17.....	\$12.15	\$20.05
8 x10.....	4.15	13.00	16x20.....	16.30	26.90
8½x11.....	4.90	15.35	18x22.....	20.05	33.10
9 x11.....	5.15	16.10	18x24.....	21.75	35.90
11 x14.....	7.95	24.85	20x24.....	24.15	39.85

All standard sizes, appearing in the P. M. C. Bromide list, will be considered standard for Solar and Line Solar Bromide. Special sizes furnished at prices 5% greater than the next larger listed size for sizes larger than 5 x 7.

	10-yd. Rolls	100-yd. Rolls
20-inch trimmed or 20½-inch untrimmed.....	\$3.05	\$27.15
40-inch trimmed or 41-inch untrimmed.....	5.65	51.50

Special narrow width rolls will be furnished when ordered in sufficient quantities to take the full width of a roll 40 inches wide, minimum length, 30 feet. Supplied in all standard Azo roll sizes.

Insurance Bromide

Prices of cut sizes and rolls furnished on application

Eastman Kodaline Bromide Paper

Sizes	Dozen	½ Gro.	Gro.	Sizes	Dozen	½ Gro.	Gro.
8x10	\$.75	\$ 3.95	\$ 7.35	16x20	\$2.75	\$14.95	\$28.70
10x12	1.15	5.85	11.00	18x22	3.40	18.25	35.30
11x14	1.40	7.40	14.05	18x24	3.60	19.80	38.35
14x17	2.10	11.30	21.45	20x24	4.00	22.00	42.60

All standard sizes, appearing in the P. M. C. Bromide list, will be considered standard for Kodaline Bromide. Special sizes furnished at prices 5% greater than the next larger listed size for sizes larger than 5 x 7.

	10-ft. Rolls	10-yd. Rolls		10-ft. Rolls	10-yd. Rolls
20 inches wide	\$2.00	\$4.85	40 inches wide	\$3.75	\$9.35

Special narrow width rolls will be furnished when ordered in sufficient quantities to take the full width of a roll 40 inches wide, minimum length, 30 feet.

Eastman Direct Positive Paper

Sizes	2 Dz.	Gro.	Sizes	2 Dz.	Gro.	Sizes	1 Dz.	2 Dz.	Gro.
2¼x3¼	\$.70	\$3.60	3¼x5½	\$.95	\$5.05	4 x6	..	\$1.20	\$6.15
2½x3½	.75	3.80	3¾x4¾	.95	4.80	4¼x6½	..	1.25	6.70
2½x3¾	.75	3.80	3½x5½	1.00	5.25	4¾x6½	..	1.35	7.30
3¼x4¼	.90	4.50	3¾x6	1.15	5.80	5 x7	\$.80	1.45	7.80
3¼x4½	.90	4.50	4 x5	1.05	5.40				

All other cut sheet sizes to be considered as special. Special sizes furnished at prices 10% greater than the next larger listed size.

Sizes	Per Roll	Sizes	Per Roll	Sizes	Per Roll
1¼ in. x 250 ft...	\$5.75	2¼ in. x 250 ft...	\$ 9.85	3½ in. x 250 ft...	\$14.85
1⅜ in. x 250 ft...	6.20	2½ in. x 250 ft...	10.90	4 in. x 250 ft...	16.85
1½ in. x 250 ft...	6.95	3 in. x 250 ft...	12.85	4½ in. x 250 ft...	18.85
1¾ in. x 250 ft...	7.95	3¼ in. x 250 ft...	13.90	5 in. x 250 ft...	20.90
2 in. x 250 ft...	8.95				

Special narrow width rolls 250 feet in length will be furnished, quotations on request.

Eastman Gelatin Printing-Out Proof Paper

Semi-Matte or Glossy

Sizes	1 Dz.	2 Dz.	½ Gro.	Gro.	Sizes	1 Dz.	½ Gro.	Gro.
3⅞x 5½	...	\$.30	....	\$1.45	8 x10	\$.55	... \$ 2.80	\$ 5.20
3¾x 6	...	.35	....	1.55	8 x10½	.55	... 3.00	5.55
4 x 5	...	.30	....	1.40	8 x11	.65	... 3.15	5.80
4¼x 5½	...	.35	....	1.60	8½x11	.70	... 3.30	6.15
4 x 6	...	.35	....	1.60	8 x12	.70	... 3.40	6.30
4¼x 6½	...	.40	....	1.85	9 x11	.70	... 3.50	6.45
4½x 5½	...	.40	....	1.65	10 x12	.80	... 4.15	7.80
4¾x 6½	...	.40	....	2.10	10 x14	.90	... 4.80	9.10
5 x 7	\$.25	...	\$1.25	2.35	11 x14	1.00	... 5.25	9.95
5 x 8	.30	...	1.50	2.70	12 x15	1.20	... 6.20	11.70
5½x 7¾	.35	...	1.55	2.85	12 x16	1.25	... 6.60	12.40
6 x 8	.35	...	1.75	3.20	12 x17	1.30	... 6.95	13.15
6 x10	.45	...	2.15	3.95	12 x20	1.55	... 8.15	15.45
6½x 8½	.40	...	2.00	3.65	14 x17	1.50	... 8.00	15.20
7 x 9	.45	...	2.25	4.15	16 x20	1.95	... 10.60	20.35
7 x10	.50	...	2.45	4.60	18 x22	2.40	... 12.95	25.05
7 x11	.50	...	2.70	5.00	18 x24	2.60	... 14.05	27.20
7½x 9½	.50	...	2.55	4.60	20 x24	2.85	... 15.60	30.20

Special sizes furnished at prices 10% greater than the next larger listed size for sizes up to 5 x 7, and 5% greater than the next larger listed size for sizes larger than 5 x 7.

	10-ft. Rolls	10-yd. Rolls		10-ft. Rolls	10-yd. Rolls
20 inches wide	\$1.50	\$3.55	40 inches wide	\$2.80	\$6.85

Special narrow width rolls will be furnished when ordered in sufficient quantities to take the full width of a roll 40 inches wide, minimum length, 30 feet.

Kotava Safety Positive Film

Sizes	Per ½ Dozen	Per Gross	Sizes	Per ½ Dozen	Per Gross
3¼x4¼	\$1.00	\$19.20	8x10	\$ 5.40	\$103.70
4 x5	1.35	25.90	11x14	10.35	198.70
5 x7	2.35	45.10	16x20	21.60	414.70
6½x8½	3.60	69.10	20x24	32.40	622.10

Eastman Safety Translite Film

Sizes	Per Doz.	Sizes	Per Doz.
3¼x4¼	\$.60	11x14	\$ 5.50
4 x 5	.70	14x17	8.50
5 x 7	1.25	12x20	8.55
8 x10	2.85	18x22	14.20
10 x12	4.30	20x24	17.50

Stereo Die Cut Azo

Per Gross \$1.70 Per 2 Dozen \$3.50
 Furnished in Grades C and F, Single Weight.

Azo Post Cards

Grade B, Nos. 1, 2, 3. Grades E and F, Nos. 1, 2, 3, 4.
 Grade K, Nos. 2 and 3.

P. M. C. Post Cards

No. 10, Normal

Double Post Cards

Azo, F only

	2 Dozen	Gross	500	5,000
Azo	\$.40	\$1.70	\$ 5.65	\$40.00
P. M. C.	.50	2.35	7.80	56.30
Double Post Cards Azo, F only	...	....	10.85	.....

Printed on Special Order

Post cards will be supplied on any double weight Eastman Paper, but no orders are accepted for less than 5,000 cards of one surface and degree of contrast. As these cards are not carried in stock, a few days are required to fill orders. Since it is not possible to print economically the exact number of cards ordered, customers will be expected to accept a quantity slightly over or under, priced accordingly.

The following prices are for grades not included in Regular Stock list. Prices are for one surface and degree of contrast.

Azo

Per case, 5,000 cards

5,000	\$44.00
10,000 to 45,000 (units of 5,000)	42.00
50,000	40.00

P. M. C., Vitava Projection, Vitava Opal

Per case, 5,000 cards

5,000	\$61.95
10,000 to 45,000 (units of 5,000)	59.10
50,000	56.30

Vitava Athena

Per case, 5,000 cards

5,000	\$72.85
10,000 to 45,000 (units of 5,000)	69.55
50,000	66.25

Unprinted Post Cards

Measuring approximately 3¼ x 5¼ only. Same price as regularly printed cards. Not less than 5,000 of any grade furnished.

Special Printing on Post Cards

When ordered in lots of not less than 5,000 of one surface and degree of contrast, the name and address or souvenir line will be printed on end, top, or bottom of cards at \$1.50 per 5,000.

EASTMAN PREPARED DEVELOPER POWDERS

The use of these powders saves time, avoids waste, and assures correctly balanced developer solutions. They are made from Eastman Tested Chemicals, are accurately compounded, packed in tin, and are always fresh.

Powders to make	1 Qt.	½ Gal.	1 Gal.	5 Gal.
Formula D-52	\$.22	\$.30	\$.45	
Formula D-72	.25	.35	.60	\$2.50
Formula D-73			.70	2.50

Number of Packages of Paper Per Case

The schedule below shows the number of packages per case of Ad-Type, Azo, Bromide, Translite, Velox, Vitava, and Proof Paper in standard sizes.

It will assist us in giving service if dealers will place their orders in units to correspond with this list.

Single Weight						
Sizes	Packages of			500 Sheets	Gro.	Sheets
	1 Dz.	2 Dz.	½ Gro.			
1 7/8 x 2 3/4	36	12	12
2 1/4 x 3 1/4	...	144	...	36	12	12
2 1/2 x 3 1/2	36	12	12
2 1/2 x 4 1/4	...	144	...	36	12	12
2 3/4 x 3 3/4	36	12	12
2 3/4 x 4 1/2	...	144	...	36	12	12
2 7/8 x 4 7/8	...	144	...	36	12	12
3 x 4	36	12	12
3 x 4 3/4	36	12	12
3 3/8 x 5 3/8	36	12	12
3 3/4 x 4 3/4	...	144	...	36	12	12
3 3/4 x 4 7/8	36	12	12
3 3/4 x 5 1/2	...	144	...	36	12	12
3 3/2 x 4 3/2	36	12	12
3 3/2 x 5 3/2	36	12	12
3 3/2 x 5 3/4	...	144	...	36	12	12
3 3/4 x 4 3/4	36	12	12
3 3/8 x 5 1/2	36	12	12
4 x 5	...	144	...	36	12	12
4 1/4 x 5 1/4	36	12	12
4 1/4 x 5 1/2	36	12	12
4 x 6	...	144	...	36	12	12
4 1/4 x 6 1/2	36	12	12
4 1/2 x 5 1/2	36	12	12

Single Weight						
Sizes	Packages of			500 Sheets	Gro.	Sheets
	1 Dz.	2 Dz.	½ Gro.			
4 3/4 x 6 1/2	36	12	12
5 x 7	...	144	...	36	12	12
5 x 7 1/2	36	12	12
5 x 8	36	12	12
5 1/2 x 7 3/4	36	12	12
6 x 8	36	12	12
6 x 9	36	12	12
6 x 10	36	12	12
6 1/2 x 8 1/2	...	72	...	36	12	12
6 1/2 x 9	36	12	12
6 1/2 x 10	36	12	12
7 x 8	36	12	12
7 x 10	36	12	12

*Azo, Translite, Velox, Vitava, and Proof

†Bromide

Number of Packages of Paper Per Case

Double Weight						
Sizes	Packages of			500 Sheets	Gro.	Sheets
	1 Dz.	2 Dz.	½ Gro.			
4 x 6	24	12	12
5 x 7	...	48	...	24	12	12
5 x 7 1/2	...	96	...	24	12	12
5 x 8	12	12	12
5 1/2 x 7 3/4	12	12	12
6 x 8	12	12	12
6 x 9	8	12	12
6 x 10	8	12	12
6 1/2 x 8 1/2	...	36	...	8	12	12
6 1/2 x 9	...	72	...	8	12	12
7 x 8	8	12	12
7 x 10	8	12	12

Double Weight						
Sizes	Packages of			500 Sheets	Gro.	Sheets
	1 Dz.	2 Dz.	½ Gro.			
7 x 11	7	12	12
7 1/2 x 9 1/2	7 1/2	12	12
8 x 10	...	36	...	8	12	12
8 x 10 1/2	...	72	...	8	12	12
8 x 11	8	12	12
8 1/2 x 11	8 1/2	12	12
9 x 11	9	12	12
10 x 12	10	12	12
10 x 14	10	12	12
11 x 14	...	24	...	11	12	12

POST CARDS

2 Dozen	Gross	500	5,000
144	24	10	1

†Azo, Bromide

**Vitava

All prices subject to change without notice.

Eastman Kodak Company
Rochester, N. Y.

Printed in U. S. A.

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June 1937

BALANCE...

DEPENDABLE developers demand that the chemicals with which they are compounded be of a standard strength and purity. Eastman Tested Chemicals are maintained at invariable standards to insure balanced chemical reactions—to enable Eastman formulas to produce the finest possible negatives and prints. Eastman Kodak Company, Rochester, N. Y.

Specify

EASTMAN TESTED CHEMICALS

AN AID TO STUDIO EFFICIENCY

THE Eastman Professional Print Dryer, all-metal, all-electrically operated, is a distinct aid in shortening production schedules. It dries two hundred 8 x 10-inch prints, or fifteen 18 x 22-inch enlargements, without curl, in an hour and a half. Prints may be delivered the same day they are made. A 750-watt space heater warms the air which a 10-inch fan blows through the fifty drying units. These units, consisting of one plain and one muslin-covered blotter between corrugated boards, rest on a concave base in a metal cabinet that's as good appearing as office equipment. The heating unit is adjustable to the stack of drying units—utilizes all of the heat when only partially filled. The price of this efficient dryer, complete with fifty 19 x 24-inch drying units, universal motor, 10-inch fan, space heater, and electric cable, is \$97.50, at your dealer's.

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

THEY HAVE

COLOR BALANCE

COLOR sensitivity means much more to portraiture than the mere elimination of exaggerated color blemishes. Balanced color sensitivity, as found in Eastman Super Sensitive and Portrait Panchromatic Films, gives true and therefore pleasing rendering of flesh tones as well as the delicate colors of gowns and accessories. These films also have brilliance and fine gradation—the speed necessary to catch live expression. Eastman Kodak Company, Rochester, N. Y.

EASTMAN

**SUPER SENSITIVE
AND PORTRAIT
PANCHROMATIC FILMS**