



STANDARD OVERHAUL PRACTICES MANUAL

APPLICATION OF SPECIAL PURPOSE COATINGS AND FINISHES

**PART NUMBER
NONE**

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STANDARD OVERHAUL PRACTICES MANUAL

Revision No. 27
Jul 01/2009

To: All holders of APPLICATION OF SPECIAL PURPOSE COATINGS AND FINISHES 20-44-01.

Attached is the current revision to this STANDARD OVERHAUL PRACTICES MANUAL

The STANDARD OVERHAUL PRACTICES MANUAL is furnished either as a printed manual, on microfilm, or digital products, or any combination of the three. This revision replaces all previous microfilm cartridges or digital products. All microfilm and digital products are reissued with all obsolete data deleted and all updated pages added.

For printed manuals, changes are indicated on the List of Effective Pages (LEP). The pages which are revised will be identified on the LEP by an R (Revised), A (Added), O (Overflow, i.e. changes to the document structure and/or page layout), or D (Deleted). Each page in the LEP is identified by Chapter-Section-Subject number, page number and page date.

Pages replaced or made obsolete by this revision should be removed and destroyed.

ATTENTION

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Location of Change

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Description of Change

Removed an extraneous cure callout in Type 41.

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HIGHLIGHTS

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Subject/Page	Date	Subject/Page	Date	Subject/Page	Date
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O 1	Jul 01/2009	15	Nov 01/2007		
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A = Added, R = Revised, D = Deleted, O = Overflow

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STANDARD OVERHAUL PRACTICES MANUAL

INTRODUCTION

1. General

- A. The instructions in this manual tell how to do standard shop procedures during maintenance functions from simple checks and replacement to complete shop-type repair.
- B. This manual is divided into separate sections:
 - (1) Title Page
 - (2) Transmittal Letter
 - (3) Highlights
 - (4) Effective Pages
 - (5) Contents
 - (6) Revision Record
 - (7) Record of Temporary Revisions
 - (8) Introduction
 - (9) Procedures
- C. Refer to SOPM 20-00-00 for a definition of standard industry practices, vendor names and addresses, and an explanation of the True Position Dimensioning symbols used.
- D. The data is general. It is not about all situations or specific installations. Use it as a guide to help you write minimum standards.
- E. If the component overhaul instructions are different from the data in this subject, use the component overhaul instructions.

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INTRODUCTION

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STANDARD OVERHAUL PRACTICES MANUAL

APPLICATION OF SPECIAL PURPOSE COATINGS AND FINISHES

1. INTRODUCTION

- A. The data in this subject comes from Boeing Process Specifications BAC5710 and BAC5881 for application of special coatings and finishes on parts that could become worn, scored, chafed, rough or touch chemicals or solvents. The airline has a copy of the Boeing Process Specification Manual.
- B. The data is general. It is not about all situations or specific installations. Use it to help you write minimum standards.
- C. This subject is about these types of coatings and finishes:
 - (1) Type 27 – Abrasion-resistant Teflon coating
 - (2) Type 31 – Corona suppressive coating
 - (3) Type 39 – Abrasion-resistant molybdenum disulfide coating
 - (4) Type 41 – Clear Skydrol-resistant topcoating
 - (5) Type 44 – Silicone alkyd copolymer coating
 - (6) Type 47 - Polyphenylene sulfide - PTFE coating
 - (7) Type 49 – Thermoclad Duralon nylon coating
 - (8) BMS 10-82 – Low emissivity gold coating
 - (9) Type 51 – Courtaulds (formerly DeSoto) high-temperature polyurethane primer
 - (10) Type 52 – Primer for nylon
 - (11) Type 53 – High temperature epoxy enamel
- D. Refer to SOPM 20-00-00 for a list of all the vendor names and addresses.

2. MATERIALS

CAUTION: THESE MATERIALS ARE HIGHLY TOXIC. USE ONLY IN WELL-VENTILATED AREAS. DO NOT BREATHE VAPORS. DO NOT LET THESE MATERIALS TOUCH EYES OR SKIN. WASH YOUR HANDS AFTER YOU ARE DONE.

- A. Solvents and Cleaners (SOPM 20-60-01)
 - (1) Toluene – TT-T-548 or JAN-T-171, Grade A
 - (2) Methyl Isobutyl Ketone (MIBK) – TT-M-268
 - (3) Methyl Ethyl Ketone (MEK) – TT-M-261
 - (4) Cleaning Solvent – Aliphatic naphtha TT-N-95 (Replaces BMS 3-2)
 - (5) Cleaning Solvent – BMS 11-7
 - (6) Xylene – TT-X-416, Grade A
 - (7) Aliphatic Naphtha – TT-N-95
 - (8) Stripper – Turco 5351
 - (9) Series 84 (SOPM 20-30-84)
- B. Cheesecloth and wipers – BMS 15-5, Class A (SOPM 20-60-04)
- C. Scotch-Brite Sheet – Finishing Type A (V76381)
- D. Abrasive Paper – Aluminum oxide, grit as specified (SOPM 20-60-04)
- E. Alodine 1000 (V84063)

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F. Type 27 Coating

- (1) BMS 10-86 (SOPM 20-60-02)
- (2) Base Resins: 7-G-30 and 7-G-30FC (color 34079 per FED-STD-595)
Hardener: 10-C-81
Thinner: 66-C-28 or 0000-T130
(V98795)
- (3) Base Resins: 8-G-23 (color 34079 per FED-STD-595)
Hardener: 50-E-3
Thinner: 66-C-43
(V98795)

G. Type 31 Coating

- (1) Base: 683-3-1 Clear
Catalyst: X-310A
Thinner: TL-59
(V98502)
- (2) Alcoa 552 aluminum powder (V01634) or Alcan MD3100 aluminum powder (V76424)

H. Type 39 Coating – Tereco 155 (V17359)

- (1) Base: Part A
- (2) Catalyst: Part B
- (3) Thinner: Use one of the following:
 - (a) Toluene
 - (b) Xylene
 - (c) MEK
 - (d) Mixture of 18% Toluene, 67% MEK, and 15% 2-Nitropropane by volume

I. Type 41 Coating (V3EDW5)

- (1) Base: 683-3-2 or 683-3-20
- (2) Catalyst: X-310A

J. Type 44 Coating

- (1) Enamel: TT-E-490 Silicone Alkyd Copolymer, Semigloss, Exterior
- (2) Thinner: TT-T-295 Mineral Spirits

K. Type 47 Coating

- (1) Akzo-Nobel (V98502)
 - (a) Primer: 26B-2
 - (b) Topcoat: 26B-3
- (2) Boyd Coating Research (V0DRF0)
 - (a) CRC 1010
 - (b) CRC 2027

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- L. Type 49 Coating (V0813B)
 - (1) Primer: Duralon EF-1 (9.6%) Epoxy Primer
 - (2) Thinner: MEK
 - (3) Topcoat: Duralon J.E. Nylon
- M. Low Emissivity Gold Coating – BMS 10-82
- N. Type 51 Coating (V85570)
 - (1) Base: 825-009
 - (2) Catalyst: 910-175
 - (3) Thinner: 020-044
- O. Type 52 Coating (V85570)
 - (1) BMS 10-79, Type 3 Class A, Grade A and BAC5882
- P. Type 53 Coating (V85570)
 - (1) Base: 529X300 or 529K002
 - (2) Catalyst: 910X465 or 910K021
 - (3) Thinner: MEK or Cellusolve Acetate

3. SURFACE PREPARATION

- A. Prepare surface for Type 27 coating.
 - (1) Untreated aluminum surfaces.
 - (a) Solvent clean the surface with a clean cheesecloth wet with a Series 84 solvent (Ref SOPM 20-30-84). Dry with clean cheesecloth before the solvent evaporates. Remove all visible unwanted material such as overspray, unwanted sealant, and adhesive flash. Clean around the fasteners, seams and lap joints with a stiff-bristle brush wet with solvent. If necessary, use wooden or plastic scrapers, sandpaper, or Scotch-Brite pads.
 - (b) Use a brush-on stripper to remove organic materials not removed by the above method. Clean off the stripper and unwanted material per step (a).
 - (c) Wet-sand all metal surfaces, but not honeycomb assemblies or anodized aluminum, with very fine Scotch-Brite pads and a Series 84 solvent (SOPM 20-30-84).
 - (d) Solvent clean all surfaces with cheesecloth wet with the solvent of step (b) above. Wipe dry before the solvent evaporates. Do this again as necessary to remove all sand and other unwanted material.

WARNING: ALODINE 1000 IS VERY CORROSIVE. DO NOT BREATHE THE VAPORS OR MIST. DO NOT GET IN EYES, ON SKIN OR CLOTHING.

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(WARNING PRECEDES)

CAUTION: CLOTHS USED TO APPLY OR REMOVE ALODINE 1000 SOLUTIONS MUST NOT BE PERMITTED TO DRY. BECAUSE OF SPONTANEOUS COMBUSTION, THEY ARE A FIRE HAZARD WHEN DRY. IMMEDIATELY AFTER YOU USE THESE CLOTHS, BE SURE TO RINSE THEM IN WATER AND THEN PUT THE CLOTHS IN WATER-FILLED STEEL CONTAINERS FOR SALVAGE OR SCRAP.

- (e) If the overhaul instructions do not give the pretreatment and primer, apply Alodine 1000 solution to etched surface with a clean wiper. Room temperature must be above 65°F. Wipe on more solution as necessary to keep the surface wet for 3 to 5 minutes. Do not try to brush-out the solution as if it were paint. Swab off and rinse with clean, soft cloths wet with clean water. Use a blotting motion or very gentle swabbing to prevent damage to the new Alodine film. Wring out cloths with fresh water and rinse again two or more times or until the surface is free of Alodine solution.
- (f) Remove unwanted liquids from seams and lap joints, as with a vacuum tool. Dry with clean wipers.
- (g) Let the surfaces, and the seams and lap joints, fully dry thoroughly before you apply primer.
- (h) Apply BMS 10-79, Type 3 primer (F-19.47).

NOTE: Zinc chromate primer can be used if specified by overhaul instructions, but the abrasion resistant finish will not be resistant to BMS 3-11 hydraulic fluid.

(2) Steel surfaces

- (a) Prepare steel surfaces and apply one coat of BMS 10-11, Type 1 primer in accordance with SOPM 20-44-02.

(3) Stainless steel and titanium

- (a) Abrade surface thoroughly with 180- to 325-grit silicon carbide abrasive paper.
- (b) Apply one coat of BMS 10-11, Type 1 primer in accordance with SOPM 20-44-02.

(4) Prepare previously painted surfaces as follows:

- (a) Epoxy primer films not over 48 hours old – Wipe with clean cheesecloth moistened with solvent. Wipe dry before the solvent evaporates.
- (b) Epoxy primer films over 48 hours old – Wipe with toluene, MEK, or TL-52 thinner followed by light sanding with 320 grit or finer abrasive paper. Remove all sanding residue with methyl isobutyl ketone on cheesecloth. Wipe dry before the solvent evaporates.
- (c) Zinc chromate primer less than 72 hours old – Wipe with clean cheesecloth moist with TT-N-95 solvent.
- (d) Zinc chromate primer over 72 hours old – To reactivate, lightly sand with 320 grit or finer abrasive paper, then wipe clean with toluene-moist cheesecloth.

NOTE: Abrasion resistant finishes applied over zinc chromate primers are not BMS 3-11 resistant.

B. Prepare surface for Type 31 coating.

- (1) Fully wet-sand the surface with 280 grit or finer abrasive paper.
- (2) Solvent clean (SOPM 20-30-03).

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C. Prepare surface for Type 39 coating.

(1) Aluminum Surfaces

- (a) Polish the area to be coated with abrasive cloth, 220 grit or finer.
- (b) Chemical treat or anodize the surface to be treated.
- (c) Apply one coat of BMS 10-11, Type 1 primer (SOPM 20-41-02).

NOTE: Zinc chromate primer can be used if specified in the applicable overhaul instructions, but then the finish will not be resistant to BMS 3-11 hydraulic fluid.

- (d) Let the primer dry a minimum of 1 hour at room temperature, or 15 minutes at 145-155°F.

(2) Steel Surfaces

- (a) Prepare surface and apply one coat of BMS 10-11, Type 1 primer (SOPM 20-41-02).

(3) Painted Surfaces

- (a) Clean and activate epoxy type primer layers, before you apply the coating, as follows:

- 1) If the primer layer is less than 48 hours old, wipe surface with clean cheesecloth moist with toluene. Wipe dry immediately. Do not let the solvent evaporate on the surface.
- 2) If the primer layer is more than 48 hours old, wipe surface with clean cheesecloth moist with toluene or MIBK and sand lightly with 320 grit or finer abrasive cloth. Remove all sanding residue with cheesecloth moist with MIBK.

- (b) Clean and activate zinc chromate primer layers, before you apply the coating, as follows:

- 1) If the zinc chromate primer is less than 72 hours old, wipe with clean cheesecloth moist with cleaning solvent.
- 2) If the zinc chromate primer is more than 72 hours old, sand lightly with 320 grit or finer abrasive cloth and remove all residue with toluene-moist cheesecloth.

D. Prepare surface for Type 41 coating.

- (1) Solvent clean (SOPM 20-30-03).

E. Prepare surface for Type 44 coating.

- (1) Solvent clean the primer layer (SOPM 20-30-03) if the primer is more than 24 hours old or if it is dirty.

- (2) Reactivate the primer layer as follows:

- (a) Epoxy primer layers not over 48 hours old – Wipe with clean cheesecloth moist with toluene. Wipe dry before the solvent evaporates.
- (b) Epoxy primer layers over 48 hours old – Wipe with toluene, MEK or TL-52 thinner, then lightly sand with 320 grit or finer abrasive paper. Remove all sanding residue with methyl isobutyl ketone on cheesecloth. Wipe dry before the solvent evaporates.
- (c) Zinc chromate primer less than 72 hours old – Wipe with clean cheesecloth moist with TT-N-95 solvent.
- (d) Zinc chromate primer over 72 hours old – To reactivate, lightly sand with 30 grit or finer abrasive paper, then wipe clean with toluene-moist cheesecloth.

NOTE: Abrasion resistant finishes applied over zinc chromate primers are not BMS 3-11 resistant.

F. Prepare surface for Type 47 coating.

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- (1) Dry abrasive blast clean (SOPM 20-30-03) with 80-120 mesh aluminum oxide or garnet.
 - (2) Remove dust with filtered air blast or wipe with a clean, dry wiper, cloth or tack rag.
 - (3) Remove metal contamination by the Cleaning, Descaling and Surface Preparation of Ferrous Alloys procedure in SOPM 20-30-03. This is not necessary if the abrasive of Paragraph 3.F.(1) was not used on metals other than CRES, nickel or cobalt alloys.
 - (4) Clean and remove contamination from titanium by the BAC5753 procedure in SOPM 20-30-03.
- G. Prepare surface for Type 49 coating.
- (1) Solvent clean (SOPM 20-30-03).
 - (2) For all surfaces but cadmium-plated steel, dry abrasive blast, then remove dust with air if necessary.
- H. Prepare surface for low emissivity gold coating.
- (1) Remove heavy dirt and stains with Scotch-Brite sheet.
 - (2) Solvent clean (SOPM 20-30-03) with BMS 11-7 solvent or toluene.
 - (3) Surface must be clean and dry when coating is applied.
- I. Prepare surface for Type 51 coating.
- (1) Solvent wipe pretreated metals (such as chemical treated or anodized aluminum or phosphated steel) (SOPM 20-30-03).
 - (2) Blast clean other metals (SOPM 20-30-03).
- J. Prepare surface for Type 52 coating – See BAC5882.
- K. Prepare surface for Type 53 coating.

NOTE: This coating is usually applied over Type 51 primer coating or BMS 10-21, Type 3 anti-static coating.

- (1) If the primer cured less than 24 hours and the surface is dirty, solvent clean (SOPM 20-30-03) with aliphatic naphtha.
- (2) If the Type 51 primer cured more than 24 hours:
 - (a) Solvent clean (SOPM 20-30-03) with aliphatic naphtha.
 - (b) Lightly sand the primed surface with Scotch-Brite or aluminum oxide paper, 240 grit or finer.
 - (c) Remove the sanding residue and reactivate the primer with a clean cheesecloth wet with solvent per SOPM 20-30-03.
 - (d) Apply a new layer of Type 51 primer. Let this dry at least 30 minutes before you apply the topcoat.
- (3) If the BMS 10-21, Type 3 coating cured more than 24 hours:
 - (a) Solvent clean (SOPM 20-30-03) with aliphatic naphtha.
 - (b) Sand to remove the coating (BAC5725). Do not damage the fiber of the composite substrate.
 - (c) Remove the sanding residue with a clean cheesecloth wet with solvent per SOPM 20-30-03.
 - (d) Apply a new layer of BMS 10-21, Type 3 coating (BAC5639). Let the coating air cure 2-24 hours before you apply the Type 51 coating.

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**STANDARD OVERHAUL PRACTICES MANUAL****4. MIXING**

- A. Shake or stir the materials before you mix them together.
- B. For Type 31, mix the aluminum powder into the clear base. Catalyze and thin immediately before application. Put through a strainer. Shake continuously during application, because the powder settles quickly.
- C. Slowly add thinner or catalyst to base material while you shake the base material. If material is to be both catalyzed and thinned, add catalyst first.
- D. Mixing Ratio
 - (1) Type 27
 - Base – 3 parts by volume
 - Catalyst – 1 part by volume
 - Thinner – 0 to 1 part by volume
 - (2) Type 31
 - Base – 3 parts by volume
 - Catalyst – 1 part by volume
 - Thinner – 1 part by volume
 - Aluminum powder – 1-1/8 pounds per quart of base
 - (3) Type 39
 - Base – 100 parts by weight
 - Catalyst – 25 parts by weight
 - Thinner – Spray: 1 part thinner to 1 part base-catalyst mixture by weight
 - Brush – 9 parts thinner to 10 parts of base-catalyst mixture by weight
 - (4) Type 41
 - Base – 2 parts by volume
 - Catalyst – 1 part by volume
 - (5) Type 44
 - Enamel – 4 parts by volume maximum
 - Thinner – 1 part by volume
 - (6) Type 47 – Use the materials as supplied. Do not add anything to make them thin.
 - (7) Type 49
 - Primer – 1 part by volume
 - Thinner – 1 part by volume
 - (8) Low emissivity gold coating
 - No mixing required. Stir or shake until homogenous.
 - (9) Type 51
 - Base – 4 parts by volume
 - Catalyst – 1 part by volume
 - Thinner – 4 parts by volume

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(10) Type 52 – See BAC5882.

Base – 1 part by volume

Catalyst – 1 part by volume

(11) Type 53

Base – 1 part by volume

Catalyst – 1 part by volume

Thinner – Not more than 0.2 part by volume

E. Mixed material must be smooth in color and have no skins, lumps, or gelled or coarse particles.

F. Let mixed Type 27 stand for 5 minutes minimum and Types 39, 41, 44, and 49 for 30 minutes before you use the mixture. Shake it before you use it.

G. Mixed catalyzed material has a pot life limit. Discard unused material after the end of the pot life as given below:

(1) Type 27 – See BAC5710 PSD 6-105.

NOTE: Type 2 has FC suffix after material designator number.

(a) Type 1 – 2 hours at 70°F or colder, 1 hour at 71-80°F, or 30 minutes at 81-90°F

(b) Type 2 – 30 minutes at 70°F or colder, or 15 minutes at 71-80°F.

(2) Type 31 – 4 hours

(3) Type 39 – See Figure 1

(4) Type 41

(a) 683-3-2 base: 4 hours at 80°F or below

(b) 683-3-20 base: 30 minutes at 80°F or below

(5) Types 44, 47, 49, and low emissivity gold coating – None

(6) Types 51, 52 – 8 hours at 80°F or below

(7) Type 53 – 8 hours at 77°F

5. APPLICATION

A. Apply coating to all areas specified by the applicable overhaul instructions. Mask off adjacent areas which are not to get the coating.

B. Apply as follows:

(1) Type 27

(a) Type 1 – Spray only

(b) Type 2 – Spray or brush

(2) Type 31 – Spray only

(3) Type 39 – Spray or brush

(4) Type 41 – Brush only

(5) Type 44 – Roller or spray

(6) Type 47 – Air spray or electrostatic spray

(7) Type 49 – Primer: Spray

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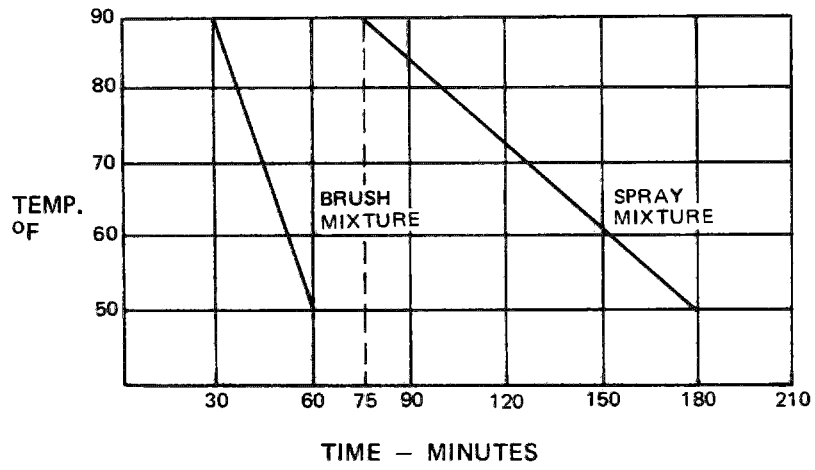
Topcoat: Apply nylon powder with electrostatic spray or with a fluidized bed. For parts held in a fixture such as springs, after they are cool, touch them up with BMS 10-11, Type 1 primer and BMS 10-60, Type 2 enamel.

- (8) Low emissivity gold coating – spray only
 - (9) Type 51 – Spray or brush
 - (10) Type 52 – Spray apply two layers before you apply the topcoat
 - (11) Type 53 – Spray only
- C. Agitate Type 31 continuously while you use it, to keep the aluminum powder mixed in the solution.
- D. When you apply the coating with a brush, use a high quality natural bristle brush and flow the coating on the surface with brush strokes in one direction only.
- E. Apply layers as necessary to get the dry film thickness given by the overhaul instructions. Let the coating cure between each layer. If the overhaul instructions do not give the thickness, use these values:
- (1) Type 27 – 5-10 mils (0.005-0.010 inch)
 - (2) Type 31 – 2.0-3.0 mils (0.002-0.003 inch)
 - (3) Type 39 – Class A: 3-7 mils (0.003-0.007 inch)
Class B: 10-20 mils (0.010-0.020 inch)
 - (4) Type 41 – 1.0-2.0 mils (0.001-0.002 inch)
 - (5) Type 44 – 3.0 mils (0.003 inch) minimum
 - (6) Type 47 – 26B-2 Primer: 0.4-0.8 mils (0.0004-0.0008 inch)
26B-3 Topcoat: 2.0-3.0 mils (0.002-0.003 inch)
CRC 1010 – 0.4 mil (0.0004 inch) first coat,
CRC 2027 – 0.7 mil (0.0007 inch) subsequent coats, 3.0-4.0 mil (0.003-0.004 inch) total unless specified.
 - (7) Type 49 – Primer: 0.1-0.4 mils (0.0001-0.0004 inch)
– Topcoat: 4.0-8.0 mils (0.004-0.008 inch)
 - (8) Low emissivity gold coating – Minimum of 6.3 grams per square foot to make a transparent red, uniform layer.
 - (9) Type 51 – 1.0-1.5 mils (0.0010-0.0015 inch)
 - (10) Type 52 – 0.5-0.8 mil (0.0005-0.0008 inch) per coat
 - (11) Type 53 – 1.0-1.5 mil (0.0010-0.0015 inch)
- F. Feather all sharp edges of the layer.

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Type 39 Pot Life Time-Temperature
Figure 1

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6. CURE

A. Cure Type 27 as follows:

(1) Type 1

- (a) Between coats – 10 minutes at 70-90°F
- (b) Before handling – 6 hours at 70-90°F
- (c) Before outdoor exposure – 12 hours at 70-90°F
- (d) Before assembly or functional use – see Figure 2

(2) Type 2

- (a) Between spray coats – 5 minutes at 70-90°F
- (b) Between brush coats – 30 minutes at 70-90°F
- (c) Before handling – 4 hours at 70-90°F
- (d) Before outdoor exposure – 6 hours at 70-90°F
- (e) Before assembly or functional use – 8 hours at 70-90°F

B. Type 31

- (1) 16 hours at 70-90°F or 2 hours at 120-150°F or 1.5 hours at 180°F

C. Type 39

- (1) Between coats – 5 minutes at 70-90°F
- (2) Before handling – 8 hours at 70-90°F
- (3) Before outdoor exposure – 12 hours at 70-90°F
- (4) Before assembly or functional use – see Figure 3

D. Type 41

(1) Before outdoor exposure:

- (a) 683-3-2 Base: 4 hours minimum at 70-90°F, or 15 minutes minimum at room temperature followed by 3 hours minimum at 120°F
- (b) 683-3-20 Base: 30 minutes minimum at 70-90°F

(2) Full cure – 14 days minimum at 70-90°F

E. Type 44

- (1) Before handling – 2 hours at 70-90°F
- (2) Before service – 24 hours at 70-90°F

F. Type 47

- (1) Crown Metro system: For each layer (primer and topcoat) air dry 5 min. maximum at 70-90°F, then bake 5-10 min. at 740-760°F. Let cool to ambient temperature between layers. Then cure the topcoat 5-10 minutes at 740-760°F.
- (2) Coating Research Corp. system: For each layer air dry 5-10 min. at 70-90°F, then bake 5-7 min. at 590-600°F. Let cool to ambient temperature between layers. Then cure 50-90 min. at 740-760°F.

G. Type 49

- (1) Primer: Air dry 20 min. at 70-90°F, then bake 20 minutes minimum at 420-460°F.
- (2) Topcoat: Bake 3-5 min. at 440°F minimum.

H. Low emissivity gold coating

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- (1) Between coats – Bake as indicated for full cure.
- (2) Full cure – Bake at 840-920°F for 10-15 minutes in an oven that is preheated to 840-920°F before the door is opened.

I. Type 51

- (1) Air dry 15 minutes minimum. Then bake per Paragraph 6.I.(2) unless specified in Paragraph 6.I.(3).
- (2) Full cure - 2 hours minimum at 240-260°F or 8 hours minimum at 190-210°F, or 24 hours minimum at 150-170°F.
- (3) Do not heat or cure bonded assemblies over 180°F. Do not heat or cure shot peened aluminum parts over 200°F or other aluminum parts over 250°F.

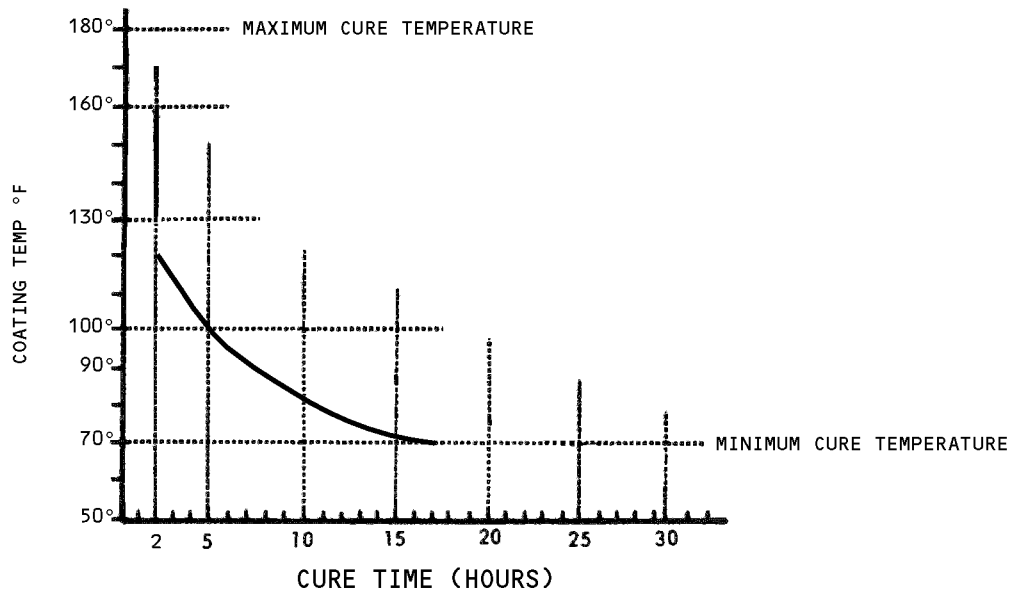
J. Type 52

- (1) First coat – 2-4 hours.
- (2) Second coat - 2-24 hours before application of BMS 10-60, Type 2 enamel. If second coat dries more than 24 hours, reactivate followed by a new coat of BMS 10-79, Type 3 primer. Type 53
- (3) Fluid resistant state – 24 hours.
- (4) Full cure – 10 days at room temperature.
- (5) Accelerated cure (optional to 10-day cure) – Let dry 30 minutes at room temperature, then bake 90 minutes at 250°F.

- K. Type 53 – Let the first coat dry 1-8 hours before you apply the second coat. Full cure: 10 days air cure, or 3 hours at 120°F, or 1-5 hours at 250°F. These cure times are for a full cure. When necessary, the minimum dry time before service is 24 hours at 70-80°F.

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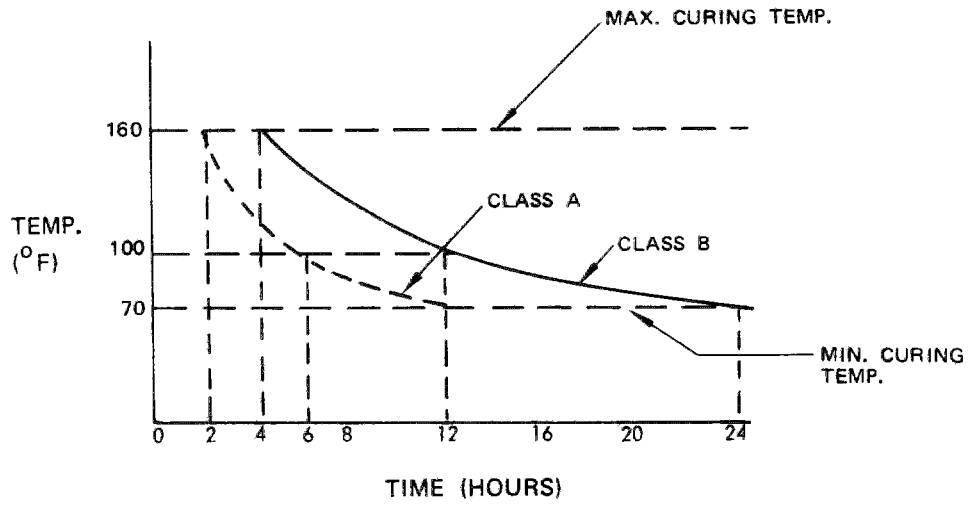


Type 27, Type 1 Coating Cure Time
Figure 2

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Type 39 Coating Cure Time
Figure 3

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STANDARD OVERHAUL PRACTICES MANUAL

7. REWORK AND REPAIR

- A. Clean all areas to be repaired per Paragraph 3. Blend the edges of all spot-painted areas smooth with the adjacent surfaces.
- B. If the abrasion-resistant coating was rubbed or worn thin, sand with abrasive paper, 280 grit, or finer. Solvent the clean area with clean wipers (SOPM 20-30-03). Then apply applicable abrasion-resistant coating per Paragraph 5.
- C. If there is damage to the BMS 10-11, Type 1 or zinc chromate primer undercoat layer, repair the area per Paragraph 3., without the conversion coating procedure.
- D. If substrate metal surfaces are scratched or rubbed bare, prepare the surface per Paragraph 3. Then apply primer and abrasion-resistant finish.

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