

Eclipse® and Aviox® High Solids Polyurethane Paint System Surface Preparation and Application Guidelines Aircraft Exterior Surfaces

Scope and Use:

This process standard establishes the recommended materials and procedures for applying AkzoNobel Aerospace Coatings high solids epoxy and polyurethane, fluid resistant paint systems to aircraft exteriors using either electrostatic or conventional spray equipment.

Surface Preparation:

Note: Aircraft must be grounded properly in at least three (3) locations. Application equipment must Also be grounded.

Metal surfaces should NOT be polished prior to or during the painting operation.

To obtain the higher finish quality available with high solids primers and topcoats, thorough surface preparation and cleaning procedures are necessary.

Paint Stripping Procedure (SPC-909)

1. Follow appropriate OEM masking procedure.
2. Masking tape should be MIL-T-23397B, Type II or similar.
3. Apply SPC-909, by spray application, in a generous thick and closed layer to ensure even and adequate coverage.
4. Allow adequate dwell time to achieve full absorption, usually 1 – 8 hours. SPC-909 will not dry out quickly and may be left overnight. High solids specialty coatings may require a dwell time of 12 hours or more.
5. Removal of spent SPC-909 and paint may be accomplished by using a squeegee.
6. Please refer to the SPC-909 Technical Data Sheet for detailed instructions and product information.

Surface Preparation *continued:*

Eclipse® Post Paint Stripping Procedure – Chromate Conversion Coating

1. Remove all stripper residues from surface. Rinse surface with copious amounts of water (preferably hot water).
 2. Wash surface with an alkaline cleaner, diluted as specified by the manufacturer, using brushes and Scotch-Brite® Pads, Ultra Fine No. 7448 Gray or Coarse No. 7447. Note: For extra heavy soil or residue removal use Ajax or equivalent using soft brushes. Seal all seams and make composite repairs at this time.
 3. If more than 48 hours has elapsed since alkaline cleaning, or heavy maintenance operations have taken place that may have soiled the exterior aircraft skin, repeat the alkaline cleaning step.
 4. Prepare aluminum aircraft skins using one of the following methods:
 - a. Power Abrade (recommended).
Power wet abrade or aggressively hand abrade the aircraft skin using abrasive pads, such as Scotch-Brite® or equivalent, and water. Rinse with copious quantities of water. Check for water break free surface in accordance with test outlined in Step 5.
or
 - b. Acid brighten (**Optional**)
Apply a phosphoric acid based brightener per the manufacturer's instructions. Start at the bottom of the aircraft, brightening one section at a time. Agitate the acid solution with Scotch-Brite® pads or equivalent, then rinse thoroughly with water. Do not allow the acid to dry on the surface. After all sections of the aircraft have been treated, re-rinse the entire surface to ensure complete removal of all acid residues. Check for a water break free surface in accordance with test outlined in Step 5.
- CAUTION:** DO NOT ALLOW ACID TO DRY ON SURFACE.
- CAUTION:** SOME BRIGHTENERS WILL PRODUCE SMUT AND THEN REQUIRE A SUBSEQUENT DE-SMUTTING STEP.
5. Water Break Free Test.
During the final rinse, water should form a continuous film over the aircraft surface. If the water forms droplets or "flashes out" suddenly over a large area, the surface has failed the water break test. If the surface fails the water break test, repeat Steps 2 and 4 until a water break free surface is obtained.

Surface Preparation *continued*:

6. Post-etch treatment
Treat the exterior aluminum surfaces using one of the methods below.

WARNING: This step is required after Step 4b, "acid brightening".
Applying primer directly over an acid brightened surface may result in adhesion failure.

- a. Apply chromate conversion coating per BMS 10-72 (AL1000) or an alternative conversion coating meeting the requirements of MIL-C-5541 and MIL-C-81706 per the manufacturer's instructions. See primer mixing instructions, page 3, for recommended pretreatments specific to the primer choice.
or
 - b. Alkaline clean in accordance with Step 2.
7. Allow aircraft surfaces to dry. Aircraft is now ready for primer application.

Note: If surface has been allowed to collect dust or other contaminants, wipe with an approved non-residual solvent such as C28/15, or equivalent, using clean rags or rumple cloth. Use the wipe-on, wipe-off method. Change cleaning rags frequently.

8. If the time between cleaning and primer application exceeds 12 hours, solvent clean the aircraft surface using an approved solvent such as C28/15. Use clean cotton rags. It is recommended that rags not be dipped into solvent cans as this may contaminate the clean solvent. Pour solvent onto the rag or, using an atomizing spray bottle, spray solvent directly onto the aircraft surface and wipe dry. Change rags frequently.

Note: Primer should be applied within 48 hours of pre-treatment cleaning.

Eclipse® Post Paint Stripping Procedure – PreKote® Surface Pretreatment

1. Remove all stripper residue by rinsing surface with copious amounts of water (preferably hot water).
2. Etch aluminum aircraft skins using the following method:
Power wet abrade or hand abrade using abrasive pads, such as ScotchBrite® or equivalent, and water. Rinse with copious quantities of water. Check for water break free surface in accordance with test outlined in Step 3.
3. Water Break Free Test:
During the final rinse, water should form a continuous film over the aircraft surface. If the water forms droplets or "flashes out" suddenly over a large area, the surface has failed the water break test. If the surface fails the water break test, repeat Steps 2 until a water break free surface is obtained.

Surface Preparation *continued*:

4. Post etch treatment

Step 1

Apply PreKote® liberally to the surface being prepared, creating a 'flood type coating'. Start from the top and work down. Completely scrub surface with a 180–240 grit aluminum oxide pad to generate a rich lather. A pneumatic power buffer or pole scrubber may be used. Pay particular attention to leading edges

and other high erosion areas. Start from the top and work down.

DO NOT RINSE. Let PreKote® dwell for approximately 2 minutes and then proceed to step 2.

Step 2

Flood surface again with PreKote®. Completely scrub surface again with a 180–240 grit aluminum oxide pad to generate a rich lather. Start from the top and work down.

Step 3

Rinse the aircraft thoroughly and allow to dry. Aircraft is now ready for primer and paint.

*If the aircraft is exposed to significant airborne contamination prior to priming/painting, all surfaces should be wiped down with a clean, PreKote® moistened, lint-free cloth.

5. Allow aircraft surfaces to dry completely prior to primer application.

Eclipse® Post Paint Stripping Procedure – AC-131 (Boegel)

1. Guidelines for the application of AC-131 can be found in the AkzoNobel *Process Document For The Use And Application Of AC-131-CB With 10P20-44M*.

Aviox® Post Paint Stripping Procedure – Metaflex® 1001

1. Treat paint stripped aluminum with Scotch-Brite® type A very fine to a uniform matte surface.
2. Clean and degrease thoroughly with Solvent Cleaning C 28/15 (normal conditions) or Solvent Cleaning 98068 (warm conditions).
3. Treat previously polished substrates with acid type brighteners first.

Preparation of Previously Painted Surfaces (not chemically stripped)

1. Wash surface prior to sanding with an alkaline cleaner mixed as specified by the manufacturer.
2. Sand old painted surface with silicon carbide paper #180 to 220.

CAUTION: Some carbide papers contain stearates that will contaminate the surface. If contamination is noted, abrade the affected areas with Scotch-Brite® pads.

3. Rinse with warm water and allow surface to thoroughly dry either by ambient conditions or by accelerated heating. Care must be taken to remove all residual water from seams and rivet recesses. Wipe with an approved non-residual solvent/cleaner.
4. Remove surface dust and debris with approved tack rags such as Greider 99. Change tack rags frequently.

High Solids Electrostatic Epoxy Primer: 10P20 Series with Eclipse®

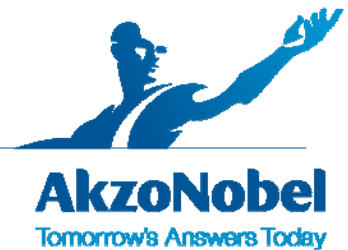
Primer Mixing Instructions

<u>Primer</u>	<u>Spec</u>	<u>Pot life</u>	<u>Overcoat Time</u>	<u>Mix Ratio</u>	<u>Curing Solution Thinner</u>	<u>Recommended Pretreatment</u>
10P20-12*	DMS 2104, Comp C, TY I	2 Hours	3 Hours	3:1	EC-212	MIL-C-5541 and MIL-C-81706
10P20-44M**	BMS10-72, TY IX ANAC Maintenance	4 Hour	3 Hours	2:1:1	EC-291/TR-114**	MIL-C-5541 and MIL-C-81706, Pre-Kote®, AC-131

NOTE: Dry to tape time for 10P20-44M is 3-4 hours

1. Store material at room temperature for a minimum of 24 hours prior to mixing.
2. Prior to mixing, put the base portion (10P20-XX) on a shaker and agitate for ten minutes.
3. The base component should be uniform and free of lumps, skins or hard settling.
4. The curing solution should be clear with a slight amber color. Do not use if the curing solution is cloudy.
4. Overcoat times are provided for standard temperature and humidity conditions, 77±2°F (25±1°C), 50±5% RH.

***Note:** These high solids epoxy primers are environmentally compliant products. Thinning is not required. If thinning is an option, up to 1 quart of TR-114 reducer may be added to 1 mixed gallon of primer. TR-114 is a compliant reducer that will not alter the VOC or HAPS content in those



geographies where the use of exempt solvents is allowed. TR-114 will reduce the primer viscosity and extend the pot life to 4 hours when mixed 3:1:1.

**** Note:** 10P20-44M is mixed 2:1:1 with EC-291 and TR-114. TR-114 is required for application and is not optional.

High Solids Electrostatic Epoxy Primer: 10P20 Series with Eclipse®

Application Equipment

1. Conventional air spray
Atomizing air pressure: 45 to 65 psi, Pot pressure (if applicable): 5 to 20 psi, Tip size: 1.2 – 1.4 mm
2. High pressure air assist airless electrostatic spray equipment (Graco Pro 4500 e.g.)
Fluid pressure: 1800 to 2500 psi (pump ratio 30:1), Flow rate 220 to 280 cc per minute,
Atomizing air pressure: 55 to 65 psi, Tip size: .009 – .011 inch (0.23 – 0.28 mm)
3. HVLP
Input air: up to 45 psi, Fluid/pot pressure: 5 to 20 psi, Tip size: 1.2 – 1.4 mm
4. XS-3
Fluid pressure: 10-20 psi, Atomizing air pressure: 45 to 60 psi, Tip size: 1.2 – 1.5 mm

Application

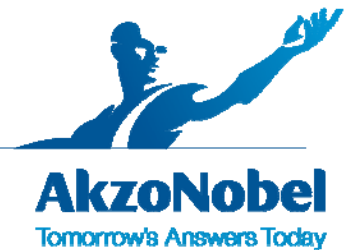
1. Spray a single uniform wet coat to a dry film thickness of 0.6 – 0.9 mils (15 – 23 microns).
2. See Mixing Instructions section of this document for minimum time to overcoat. Maximum overcoat time is 48 hours. After 48 hours, surface must be lightly abraded and solvent wiped and tacked.

Chromate Free Electrostatic Polyurethane Primer: Aerodur® CF Primer 37047 with Aviox®

Primer Mixing Instructions

<u>Primer</u>	<u>Spec</u>	<u>Pot life</u>	<u>Overcoat Time</u>	<u>Mix Ratio</u>	<u>Curing Solution</u>	<u>Recommended Pretreatment</u>
Aerodur® CF 37047	SMI 70043 STD 175437	6 hours	2 hours*	2:1:1-2**	S 66/14	Metaflex® 1001
		8 hours	4 hours*	2:1:1-2**	S 66/22 R	

* **Note:** Recoatable maximum is 72 hours. If 72 hours is exceeded, condition surface with Scotch-Brite® type A very fine.



** **Note:** 1 – 2 parts Thinner C25/90S or Thinner 98064 to reduce for spray viscosity.

1. Store material at room temperature for a minimum of 24 hours prior to mixing.
2. Stir or shake Aerodur® CF Primer 37047 until all pigment is uniformly dispersed before adding curing solution.

**Chromate Free Electrostatic Polyurethane Primer:
Aerodur® CF Primer 37047 with Aviox® *Continued***

3. Add Curing Solution S 66/14 or S 66/22 R and stir the catalyzed mixture thoroughly.
4. Add Thinner and stir again until homogeneous.

Application Equipment

1. Conventional air spray
Atomizing air pressure: 45 to 65 psi, Pot pressure (if applicable): 5 to 20 psi, Tip size: 1.2 – 1.4 mm
2. High pressure air assist airless electrostatic spray equipment (Graco Pro 4500 e.g.)
Fluid pressure: 1800 to 2500 psi (pump ratio 30:1), Flow rate 220 to 280 cc per minute
Atomizing air pressure: 55 to 65 psi, Tip size: .011 – .013 inch (0.28 – 0.33 mm)
3. HVLP
Input air: up to 45 psi, Fluid/pot pressure: 5 to 20 psi, Tip size: 1.2 – 1.4 mm

Application

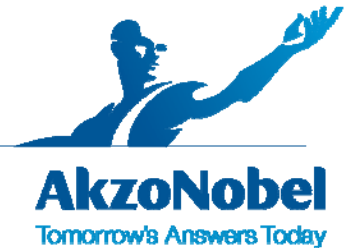
1. Spray a single uniform wet coat to a dry film thickness of 0.6 mils (15 microns).
2. See Mixing Instructions section of this document for minimum time to overcoat. Maximum overcoat time is 72 hours. After 72 hours, surface must be lightly abraded and solvent wiped and tacked.

High Solids Polyurethane Enamel Topcoat: Eclipse® Series

Topcoat Mixing Instructions

1. Store material at room temperature for a minimum of 24 hours prior to mixing.
2. Prior to mixing put the base portion (ECL-G-XXX) on a shaker and agitate for ten minutes.
3. The base component should be uniform and free of lumps, skins or hard settling.
4. The curing solution should be clear. Do not use if the curing solution has gelled, is cloudy or milky. Do not use the material if the unopened can shows signs of swelling. Swelling indicates that moisture contamination may have occurred.

	<u>Base</u>	<u>Curing Solution</u>	<u>Mix Ratio</u>
Gloss	ECL-G-XXX	PC-233	2:1:1
Semi-gloss	ECL-SG-XXX	PC-233	3:1
Flat	ECL-F-XXX	PC-233	3:1
Non-metallic, metallic (Un-tinted mica)	ECL-G-8XXX	PC-233	2:1
Non-metallic, metallic (Tinted mica)	ECL-G-8XXXM	PC-233	2:1:1
Clear	ECL-G-2	PC-233	2:1:1



Clear	ECL-G-7	PC-233	2:1:1
Clear	ECL-GC-6	PC-233	2:1

5. Activator Choices: TR-109, TR-111, TR-112, TR-113 or TR-141

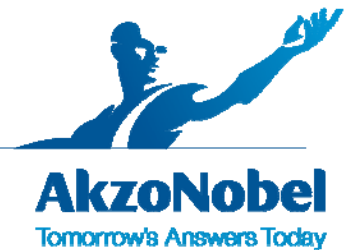
High Solids Polyurethane Enamel Topcoat: Eclipse® Series *continued*

Note: Various activator options are available dependent upon dry to tape times required. At standard temperature and humidity conditions, TR-109 will provide the indicated dry to tape times with a wet edge time of 20-40 minutes. TR-111 at standard conditions will provide a wet edge time of 15-30 minutes. TR-112 and TR-113 are for touchup areas only. These activators are pre-adjusted to meet specific dry times. No additional accelerator should be added. The pot life and wet-edge of the topcoat are dramatically reduced when mixed with TR-112 or TR-113. TR-141 is designed for maximum wet edge in high temperature and humidity conditions.

- a. A 15 – 30 minute induction time is recommended before application.
 - b. It is extremely important to maintain an accurate mix ratio as any deviation can adversely affect application and performance properties. Slowly add the base and curing solution components together while stirring. Use the TR-XXX to rinse the base and curing solution cans to remove residual material and ensure an accurate mix. Pot life is 4 hours for white, 3 hours for colors, using TR-109, or TR-141.
6. Viscosity should be 17 – 23 seconds, #2 Zahn cup, or 30 – 50 seconds, #4 ISO cup.
7. It is recommended that the mixed material is kept under slight agitation during induction and spraying.

Application Equipment

1. Conventional air spray
Atomizing air pressure: 45 to 65 psi, Pot pressure (if applicable): 5 to 20 psi, Tip size: 1.2 – 1.4 mm
2. High pressure air assist airless electrostatic spray equipment (Graco Pro 4500 e.g.)
Fluid pressure: 1800 to 2500 psi (pump ratio 30:1), Flow rate: 280-360 cc per minute
Atomizing air pressure: 55 to 65 psi, Tip size: .009 – .011 inch (0.23 – 0.28 mm)
3. HVLP
Input air: up to 45 psi, Fluid/pot pressure: 5 to 20 psi, Tip size: 1.2 – 1.4 mm
4. XS-3 Electrostatic Air Spray
Fluid pressure: 10-20 psi, Atomizing air pressure: 45 to 60 psi, Tip size: 1.2 – 1.5 mm



Topcoat Application

1. Apply the Eclipse® topcoat in two to three applications as described below to a recommended dry film thickness of 2 – 3 mils (50 – 75 microns).
2. The objective with the first coat is to apply the material with sufficient wet film thickness to form a continuous film. Do not "paint to hide" on the first coat. A smooth, even, wet coat is desirable. Make every effort to avoid "dry" spraying, as this will increase the potential for orange peel.

High Solids Polyurethane Enamel Topcoat: Eclipse® Series *continued*

3. Allow the first coat to dry in accordance with the table below.
4. Recommended recoat time at 77° ± 2°F (25 ± 1°C) 50 ± 5% RH)*

<u>Activator</u>	<u>Recommended Re-coat Time</u>
TR-109	45 – 120 minutes
TR-111	30 – 60 minutes
TR-112	20 – 40 minutes
TR-113	15 – 30 minutes
TR-141	45 – 120 minutes

* **Note:** Dry time refers to the elapsed time between the start of the first coat application and the start of the second coat application. Note: Paint will transfer when touched and is not a cause for concern.

5. Apply second coat. This coat should be applied wet ensuring complete uniform coverage.
6. Allow the second coat to dry in accordance with the table above.
7. Apply a uniform wet third coat if necessary (some colors may require three or more coats to achieve acceptable hide).
8. Prior to the introduction of heat (force cure cycle) it is imperative that sufficient time is allowed for the solvents to evaporate. Unlike conventional polyurethane topcoats, high solids topcoats have relatively slow evaporating solvents. A minimum of one hour at 77° (25°C) is required to allow solvents to escape. Additional time may be required for cooler temperatures, thick films or high humidity conditions.
9. If accelerated curing is used, after allowing a minimum of one (1) hour "flash-off", slowly bring the heat up to a maximum temperature of 130°F (54°C).
10. The Eclipse® Series gloss topcoats will dry to tape as shown in the tables below:

<u>77°F (25°C)</u> <u>Activator</u>	<u>77°F (25°C)</u> <u>Pot Life</u>	<u>90°F (32°C)</u> <u>50% RH</u>	<u>120°F (48°C)</u> <u>40% RH</u>	<u>10% RH</u>
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TR-109	3-4 hrs	10-12 hrs	8-9 hrs*	4-5 hrs*
TR-111	1.5-2 hrs	7-8 hrs	4-5 hrs*	3-4 hrs*
TR-112	1-1.5 hrs	5-6 hrs	2-3 hrs*	1.5-2 hrs*
TR-113	0.5-1 hrs	2-3 hrs	1-2 hrs*	<1 hr*
TR-141	3-4 hrs	10-12 hrs	8-9 hrs	4-5 hrs

Note: Dry to tape time does not include the required one (1) hour flash off time prior to force curing.

Note: TR-112 and TR-113 are for touchup areas only. These activators are pre-adjusted to meet specific dry times. No additional accelerator should be added. The pot life and wet-edge of the topcoat are dramatically reduced when mixed with TR-112 or TR-113.

High Solids Polyurethane Enamel Topcoat: Eclipse® Series

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Activator Option Explanation:

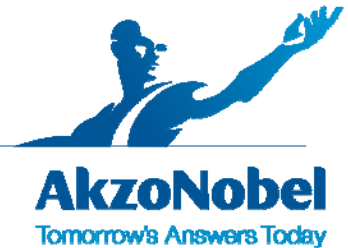
<u>Activator</u>	<u>Air dry condition</u>	<u>Dry to touch time</u>	<u>Dry to tape time</u>	<u>Comment</u>
TR-109*	77°F(25°C) 50% RH	3.25 hours	10-12 hours	Standard activator
TR-111*	77°F(25°C) 50% RH	3.25 hours	7 hours	Faster activator
TR-112*	77°F(25°C) 50% RH	1.75 hours	4.5 hrs	Suggested activator for roller application**
TR-113*	77°F(25°C) 50% RH	45 minutes	3 hrs	Touch-up & markings only
TR-141	85°-100°F+ (29-38°C+)	3.25 hours	10-12 hours	Formulated to optimize wet performance at elevated temperatures 85°-100°F (29-38°C)

*Boeing Approved Activators

- BMS 10-60 and BMS 10-125: TR-109, TR-111, TR-112, TR-113
- BMS 10-72: TR-109, TR-112, TR-113

**See roller application amendment to process standard

11. Markings and speed lines must be applied to the polyurethane topcoat within 24 hours when using TR-109, or TR-141, and within 12 hours when using TR-111. If the topcoat has dried longer than the allotted time, abrade with a coarse Scotch-Brite® pad or non-stearate 220 grit sandpaper to break the gloss prior to the application of markings and speed lines.
12. The Eclipse® decorative topcoat system will achieve water resistance after curing for 24 hours and Skydrol® resistance after curing for 72 hours.
13. Rework.
 - a. Lightly Scotch-Brite® the surface requiring rework.
 - b. Solvent clean to remove sanding residue.
 - c. Tack off the surface.
 - d. Spray a single uniform wet coat of 10P20 Series epoxy primer on exposed metal and fasteners.
 - e. On horizontal surfaces apply one wet uniform coat of the Eclipse® polyurethane topcoat.



- f. On vertical surfaces apply two light wet uniform coats (refer to Steps 1-9).
- g. To ensure the most optimized color match, induct the topcoat for 30 minutes prior to application when doing rework.

High Solids Polyurethane Enamel Topcoat: Eclipse® Series

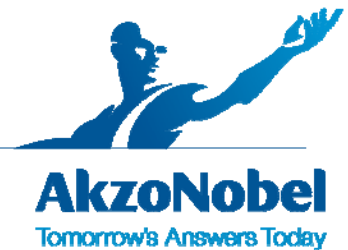
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Eclipse® "Non Metallic" Metallic Colors

1. The Eclipse® "non metallic" metallic system consists of a solid color base coat, a semi-transparent "metallic" coat, and a clear topcoat.
2. Apply the specified Eclipse® base coat (ECL-G-XXX) per instructions of previous section until full hide is achieved.
3. Allow the final coat of the Eclipse® base color to dry to a "dry-to-touch" condition. The surface may be tacky but there will be no pick-off, or transfer of the paint when touched. The maximum re-coat time is 24 hours using TR-109 or TR-141, 12 hours with TR-111, TR-112, or TR-113.
4. Apply two even wet coats or one cross coat of the Eclipse® "non-metallic" metallic coating (micas), either ECL-G-8XXX or ECL-G-8XXXM). Allow to dry a minimum of 2 hours. (For some exterior decoration designs, ECL-G-XXXM will be applied to hide directly over the primer with no base coat being applied.)
5. Apply two even wet coats of Eclipse® clear coat. (ECL-G-2 or ECL-G-7)

Eclipse Roller Application Process Instructions

1. Mix ECL-G-Series base, PC-233 curing solution and TR-112 at 2:1:1.
2. Do not add accelerators, bubble busters, or crater and/or fisheye eliminators.
3. Induct 20-30 minutes for colors and 45 minutes for white, allowing time to develop body and viscosity for vertical hang.
4. Apply material within its usable pot life of 45-60 minutes (after induction time).
5. Apply material with a foam roller (Bestt Lebco Foam 9V66, Stock #86600900, 3/16" Nap recommended).
6. Rollers will degrade and must be changed out every 30 minutes.



7. Apply all coats medium to heavy, just shy of sagging, with no “feathering in” keeping the roller wet/saturated at all times.
8. Apply subsequent coat(s) in a “wet-on-dry” application with minimum overcoat time of 2 hours (dry-to tape time is 90-120 minutes with standard masking tape, with some variability due to color, temperature and %RH). Fresh paint should be mixed for each roller application.
9. Maximum overcoat time is 8 hours, after which the coating must be lightly physically abraded to break the gloss to prepare it to accept an additional coat.

High Solids Polyurethane Enamel Topcoat: Aviox® Series

Topcoat Mixing Instructions

1. Store material at room temperature for a minimum of 24 hours prior to mixing.
2. Stir or shake Aviox® Finish 77702 until all pigment is uniformly dispersed before adding curing solution.
3. Add Curing Solution 90150 and stir the catalyzed mixture thoroughly.
4. Add the Activator and stir again until homogeneous.

<u>Base</u>	<u>Curing Solution</u>	<u>Activator Options*</u>	<u>Mix Ratio</u>
Aviox® Finish 77702	90150	99321	2:1:1
		99322	2:1:1
		99330	2:1:1
		99341	2:1:1

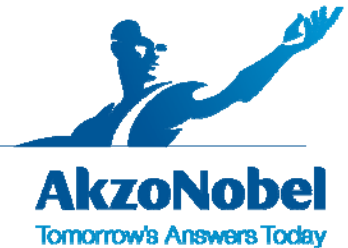
Note: Various activator options are available dependent upon application and conditions.

5. Viscosity should be 11 – 16 seconds, #2 Signature Zahn cup, or 21 – 30 seconds, #4 ISO cup.

<u>Activator</u>	<u>Application</u>	<u>Conditions</u>
99321	Fuselage	Ambient
99322	Fuselage	Cold
99341	Fuselage	Warm
99322	Decoration	Ambient
99330	Decoration	Cold

Application Equipment

1. Conventional air spray
Atomizing air pressure: 45 to 65 psi, Pot pressure (if applicable): 5 to 20 psi, Tip size: 1.2 – 1.4 mm.



2. High pressure air assist airless electrostatic spray equipment (Graco Pro 4500 e.g.)
Fluid pressure: 1800 to 2500 psi (pump ratio 30:1), Flow rate: 280-360 cc per minute,
Atomizing air pressure: 55 to 65 psi, Tip size: .011 – .013 inch (0.28 – 0.33 mm)
3. HVLP
Input air: up to 45 psi, Fluid/pot pressure: 5 to 20 psi, Tip size: 1.2 – 1.4 mm
4. XS-3 Electrostatic Air Spray
Fluid pressure: 10-20 psi, Atomizing air pressure: 45 to 60 psi, Tip size: 1.2 – 1.5 mm

High Solids Polyurethane Enamel Topcoat: Aviox® Series *continued*

Topcoat Application

1. Apply a single coat. When adequate hiding is not achieved after the second coat, an extra coat may be necessary. Apply the following flash-off times for the Activators below:

<u>Activator</u>	<u>Recommended Re-coat Time</u>
99341	75 – 120 minutes
99321	60 – 105 minutes
99322	45 – 75 minutes
99330	15 – 30 minutes
TR-141	30 – 45 minutes

Note: Dry time refers to the elapsed time between the start of the first coat application and the start of the second coat application.

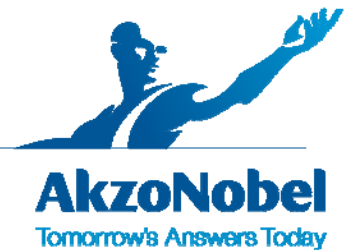
Note: Paint will transfer when touched and is not a cause for concern.

2. Apply second cross-coat. This coat should be applied wet ensuring complete uniform coverage.
3. Allow the second coat to dry in accordance with the table above.
4. Apply a uniform wet third coat if necessary (some colors may require three or more coats to achieve acceptable hide).

Note: When bright transparent colors, e.g., bright orange or yellow, are applied, it is advisable to apply Aviox® Finish 77702 in an off-white color first. This is to reduce the number of coats necessary to achieve adequate hiding of the final color.

Dry Times

Dry to Dust: 2 – 3 hours
Dry to Tape:



Activator 99341	14 – 17 hours
Activator 99321	10 – 12 hours
Activator 99322	7 – 9 hours
Activator 99330	3 – 5 hours (decoration colors)

Forced Cure: 30 minutes flash-off followed by 45 minutes at 70°C (160°F) or
Dry to handle 75 minutes at 60°C (140°F)

Recoat minimum: Observe dry to tape times
Recoat maximum: Aviox® Finish 77702 is recoatable within 48 hours.

Note: If a drying time of 48 hours is exceeded, recondition the surface with Scotch-Brite® type A very fine. Aviox® Finish 77702 can be recoatable within 7 days when reconditioned with sanding paper P400 and properly cleaned and degreased.

Precautions:

1. Suitable respirators must be worn by spray personnel when applying epoxy and polyurethane finishes preventing inhalation of spray vapors. A respirator approved by the U. S. Bureau of Mines containing cartridges for organic vapors and suitable for use with epoxy and polyurethane coatings is recommended. Where air circulation is insufficient, an air-supplied respirator is required. Operators applying these materials should also wear rubber gloves, hoods and coveralls so these materials do not come in contact with exposed skin.
2. If liquid curing solution contacts the skin or eyes, wash skin with soap and water; flush eyes with large amounts of water and seek medical attention.
3. Polyurethane and epoxy coatings are flammable materials, utilize fire safety precautions.
4. See Material Safety Data Sheet for detailed safety information.

Notes

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Scotch-Brite® is a registered trademark of the 3M Company
Eclipse® is a registered trademark of AkzoNobel Aerospace Coatings
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IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given is subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.