



Product Group

Polyurethane Topcoats

Characteristics



Product Information

Aviox® Finish 77702 is a 3 component durable high gloss finish for exterior use.

- Extended durability / UV resistance
- High solids
- Resistance to aircraft hydraulic fluids and chemicals
- Wide application window due to various activators

Aviox® Finish 77702 is a product part of the Aviox® Advanced Series which utilizes the latest high solid technology and sets the standard for minimum process times and reduced process cycle costs.

Components



Hardener
Thinner or
Activator

Hardener 90150

	Application	Conditions
Activator 99322	Fuselage	Cold conditions
Activator 99321	Fuselage	Ambient conditions
Activator 99341	Fuselage	Warm conditions
Activator 99322	Decoration	Ambiant conditions
Activator 99330	Decoration	Cold conditions

For application and curing conditions of the different activators, consult the appendix: activators guideline.

Specifications



Qualified Product List

Airbus	AIMS 04.04.013 / 014 AIMS 04.04.031 / 032 AIMS 04.04.025
Embraer	MEP 10-069 (performance)
Bombardier	BAMS 565-009, Type I, Grade B (performance)
Boeing	BMS 10-72 Type V (performance) DMS 2112/DPM6447 (performance)

For most recent up-date or missing specifications please check the qualified product list (QPL) on www.akzonobel.com/aerospace

Surface Conditions



Cleaning

- Aviox® Finish 77702 is compatible with the most commonly used primers.
- Observe the recoatability times of the relevant primer.
- Apply Aviox® Finish 77702 preferably on clean primer. Remove oil, grease and other contamination prior to application.
- Recondition aged primers or topcoats with e.g. Scotch-Brite® type A very fine to a uniform matt surface.
- Remove dust with e.g. tack rags just prior to application of Aviox® Finish 77702



Instruction for Use



Mixing Ratio
(volume)

100 parts	Aviox® Finish 77702
50 parts	Hardener 90150
50 parts	Activator 99341, 99321, 99322 or 99330

- Allow products to acclimatize to room temperature before use.
- Stir or shake Aviox® Finish 77702 till all pigment is uniformly dispersed before adding hardener.
- Add Hardener 90150 and stir the catalyzed mixture thoroughly.
- Add the Activator and stir the catalyzed mixture again thoroughly.



Induction Time

Not applicable. The product is ready for use directly after mixing



Initial Spraying
Viscosity
(21°C/70°F)

21 – 30 seconds ISO-Cup 4.
11 – 16 seconds Gardner Signature Zahn-Cup #2



Note

Viscosity measurements are provided as guidelines only and are not to be used as quality control parameters. Certified information is provided by certification documentation available on request.



Pot Life
(21°C/70°F)

Activator 99341	2 hours
Activator 99321	2 hours
Activator 99322	2 hours (for white and grey colors)
Activator 99322	1½ hours (other colors)
Activator 99330	1 hour



Dry Film
Thickness
(DFT)

50 – 130 micron (μm) depending on color
2.0 – 5.2 mils



Note

The application and mixing characteristics of High Solid products differ from conventional products. Mix base and hardener for at least 2 minutes thoroughly. The high solid content causes a rapid film build up.

**Application
Recommendations**



Conditions

Temperature:	15 – 35°C
	59 – 95°F
Relative Humidity:	35 – 75%



Note

Aviox® Finish 77702 topcoat may be applied in conditions outside of the limits shown above. Care must be exercised to ensure a satisfactory result. Please contact your local AkzoNobel Aerospace Coatings representative to determine the proper application techniques and choice of activators when environmental conditions fall outside of the recommended range.



Equipment

Air	1.2 – 1.4 mm nozzle orifice
HVLP	1.2 – 1.4 mm nozzle orifice
Air Electrostatic	1.2 mm nozzle orifice
Airless Electrostatic	6.11 – 6.13, (.011 - .013 inch) angle 60°



Number of Coats

Apply a single coat followed by a cross coat. When industrial hiding is not achieved after the second layer, an extra layer may be necessary. Apply the following flash-off times for the Activators mentioned below:

Activator 99341	75 – 120 minutes
Activator 99321	60 – 105 minutes
Activator 99322	45 – 75 minutes
Activator 99330	30 – 45 minutes

The flash-off times between the coats are influenced by temperature, relative humidity and air movement.



Note

When bright transparent colors (e.g. bright orange, yellow) are applied, it is advisable to apply Aviox® Finish 77702 in an off-white color (e.g. M8001) before application of the color. This to reduce the number of coats necessary for industrial hiding.



Cleaning of Equipment

Solvent Cleaning C 28/15 or Solvent Cleaning 98068



Note

The quality of the application of all coatings will be influenced by the spray equipment chosen and the temperature, humidity, and air flow of the paint application area. When applying the product for the first time, it is recommended that test panels be prepared in order to identify the best equipment settings to be used in optimizing the performance and appearance of the coating.









Physical Properties



Drying Times according to AITM 2-0011 (23+/-2°C, 55+/-5% RH)

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: (dry to handle)	30 minutes flash-off followed by 45 minutes at 70°C or 75 minutes at 60°C.
Recoatable minimum	see dry to tape times
Recoatable maximum	Aviox® Finish 77702 is recoatable within 48 hrs. If a drying time of 48 hrs is exceeded, recondition with e.g. 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.



	Note	Please consult the Appendix: Activator Guideline to select the correct Activator for different climate conditions.	
	Theoretical Coverage	20 m ² per liter base material at 50 µm dry film thickness (white) 814 ft ² per US gallon base material at 2 mil dry film thickness	
	Dry film weight	1.44 g/m ² /µm for white and off-white colors. Other colors on request. 0.0075 lbs/ft ² /mil for white and off-white colors. Other colors on request.	
	Volatile Organic Compounds	Maximum 420 g/l Maximum 3.5 lb/gal	
	Gloss (60°)	Minimal 90 GU	
	Color	Wide range of colors is available.	
	Flash-point	Aviox® Finish 77702	>21°C /70°F
		Hardener 90150	>21°C /70°F
		Activator 99321, 99322, 99330, 99341	<21°C /70°F
	Storage	Store the product dry and at a temperature between 5 and 25°C / 41 and 77°F. Stored in the original unopened containers.	
		Aviox® Finish 77702	24 months
		Hardener 90150	24 months
		Activator 99321, 99322, 99330, 99341	36 months

Safety Precautions

Comply with all local safety, disposal and transportation regulations. Check the Material Safety Data Sheet (MSDS) and label of the individual products carefully before using the products. The MSDS's are available on request.

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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.

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Scotch-Brite® is a trademark of 3M.



Appendix: Activator Guideline

The temperature and relative humidity during application and drying of Aviox® Finish 77702 significantly influence the final appearance of the coating. Aviox® Finish 77702 has been developed to be easy applicable and to obtain the highest appearance standards. The conditions in the maintenance sector changes with the season and therefore several activators are available. Choose the right activator from the table below depending on the temperature and humidity in your situation to obtain the best results:

Temperature		Relative Humidity (%)	Activator	
(°C)	(°F)		Fuselage	Decoration colours
15	59	30	99322	99330
15	59	55	99322	99330
15	59	80	99322	99330
20	68	30	99322	99330
20	68	55	99322 - 99321	99330
20	68	80	99321	99330
25	77	30	99321	99322 - 99330
25	77	55	99321 - 99341	99322
25	77	80	99341	99322
30	86	30	99341	99321
30	86	55	99341	99321
30	86	80	99341	99321
35	95	30	99341	99321
35	95	55	99341	99341
35	95	80	99341	99341