Aviox® Clearcoat UVR

AkzoNobel
Tomorrow's Answers Today

Product Group

Polyurethane Topcoats

Characteristics

Product Information

Aviox® Clearcoat UVR is a 3-component durable high gloss polyurethane clear-coat for application on exterior decoration schemes.

- Extended durability / UV resistance
- Long lasting "wet look" appearance
- Less dirt retention
- Easy to clean
- Resistance to aircraft hydraulic fluids and chemicals
- Wide application window due to various activators
- Admixed VOC is 480g/L

Aviox® Clearcoat UVR 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. Aviox Clearcoat UVR can be used in combination with SRA9009 to ease spot-repair. See SRA9009 Technical Data Sheet for this purpose

Components

Hardener Thinner
or
Activator

Hardener 90150

Activator 99397, to be used on large area and high temperature and RH (long open time)
Activator 99341, to be used on large area and high temperature and RH
Activator 99321, to be used on large area under normal conditions
Activator 99330, to be used on small area's
(See Activator Guideline in Appendix)

Specifications

Qualified Product List

Airbus	AIMS 04.04.023 AIMS 04.04.025 AIMS 04.04.033 AIMS 04.04.037
SAE	AMS3095A

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

Surface Conditions

Cleaning

- Minimal overcoat time of the topcoat with the clear-coat is 4hrs.
- Observe the maximal re-coatability time of the relevant topcoat.
- Apply Aviox® Clearcoat UVR only on a clean finish. Remove oil, grease and other contamination before application.
- Recondition aged 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® Clearcoat UVR.

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Instruction for Use

Mixing Ratio (volume)

100 parts	Aviox® Clearcoat UVR
50 parts	Hardener 90150
50 parts	Activator 99397, 99341, 99321, 99330

- Allow products to acclimatize to room temperature before use.
- Stir or shake Aviox® Clearcoat UVR thoroughly to obtain a homogeneous product 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 (21ºC/70ºF)

21 – 27 seconds ISO-Cup 4.
11 – 14 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 (21ºC/70ºF)

Activator 99397	2 hours
Activator 99341	2 hours
Activator 99321	2 hours
Activator 99330	1 hour

Dry Film Thickness (DFT)

35 – 45 micron (µm)
1.4 – 1.8 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 – 35ºC 59 – 95ºF
Relative Humidity:	35 – 75%

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Note

Aviox® Clearcoat UVR may be applied in conditions outside of the the limits shown above. Care must be excercised 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	1.4 mm nozzle orifice
HVLP	1.4 mm nozzle orifice
Air Electrostatic	1.2 mm nozzle orifice
Airless Electrostatic	6.11 – 6.13, (.011 - .013 inch) angle 60º

Number of coats

Apply one full wet cross-coat. Apply after 60 minutes flash off time a second full wet cross coat when applicable.

When applied over Aviox® Advanced Mica: Apply, depending of the surface appearance of the Aviox® Advanced Mica (surface roughness), one or two full wet cross-coats.

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 (21ºC/70ºF)

Dry to dust	1 – 2 hours (Activator 99330) 3 – 4 hours (Activator 99321 / 99397 / 99341)
Dry to tape:	
Activator 99397	15 – 19 hours
Activator 99341	15 – 19 hours
Activator 99321	12 – 16 hours
Activator 99330	5 – 7 hours
	(See Activator Guideline in Appendix)
Recoatable minimum	see dry to tape times
Recoatable maximum	Aviox® Clearcoat UVR 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® Clearcoat UVR can be recoated within 7 days when reconditioned with sanding paper P400 and properly cleaned and degreased.

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Theoretical Coverage	25 m^2 per liter base material at 35 µm dry film thickness 1018 ft^2 per US gallon base material at 1.4 mil dry film thickness
Dry film weight	1.1 $g/m^2/\mu m$ 0.0057 $lbs/ft^2/mil$
Volatile Organic Compounds	Maximum 480 g/l Maximum 3.75 lb/gal
Gloss (60º)	Minimal 90 GU
Color	Clear

Flash-point

Aviox® Clearcoat UVR	>21ºC /70ºF
Hardener 90150	>21ºC /70ºF
Activator 99321	<21ºC /70ºF
Activator 99341	<21ºC /70ºF
Activator 99330	<21ºC /70ºF
Activator 99397	>21ºC /70ºF

Storage (5 and 35ºC/ 41 and 95ºF)

Store the product dry and at a temperature between 5 and 35ºC / 41 and 95ºF. Stored in the original unopened containers.

Aviox® Clearcoat UVR	24 months
Hardener 90150	24 months
Activator 99321	36 months
Activator 99341	36 months
Activator 99330	36 months
Activator 99397	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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Appendix: Activator Guideline

The temperature and relative humidity during application and drying of Aviox Clearcoat UVR significantly influence the final appearance of the coating. Aviox Clearcoat UVR 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 and aircraft type in your situation to obtain the best results:

ACTIVATOR SELECTION DEPENDING ON CONDITIONS

condition	Repair	Narrow Boby	Wide boby
23°C/30%RH	**99330**	**99321**	**99397***
23°C/50%RH	**99330**	**99321**	**99397***
23°C/80%RH	**99330**	**99321/99397***	**99397***
30°C/30%RH	**99330**	**99321/99397***	**99397***
30°C/80%RH	**99330/99321**	**99397***	**99397***

* Activator 99341 could also be used instead of Activator 99397. Activator 99397 is recommended as it has an additional overspray acceptance compared with Activator 99341.

The table below indicates the dry to tape times to be expected depending on the conditions:

DRY TO TAPE TIME (h)

conditions	99330	99321	99341	99397
23°C/30%RH	**6-8h**	**19-23h**	**28-34h**	**28-34h**
23°C/50%RH	**5-7h**	**12-16h**	**16-19h**	**16-19h**
23°C/80%RH	**4-6h**	**9-12h**	**13-17h**	**13-17h**
30°C/30%RH	**1-3h**	**7-10h**	**9-13h**	**9-13h**
30°C/80%RH	**1-2h**	**5-8h**	**6-9h**	**6-9h**

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