



Product Group

Polyurethane Topcoats

Characteristics



Product Information

Aerobase is a 3-component basecoat for use in the base coat – clear coat decoration system for commercial aircraft application to provide uniform coverage and appearance in one box coat application for most of the colors. When used with the specified polyurethane clear top coat, Aviox® Clearcoat UVR, this system provides a durable long lasting, protective and decorative finish that exceeds typical OEM requirements for exterior aircraft performance.

Aerobase in combination with Aviox® Clearcoat UVR provides:

- Excellent gloss / color retention
- Extended durability and weathering
- Opacity at low film thickness
- Short tape time
- Reduction of process times
- Superior chemical and stain resistance
- Low dirt adhesion
- Excellent cleanliness
- Sustainable and cost efficient

Components



Hardener
Thinner or
Activator

Base material	Aerobase
Curing Solution	Aerobase Curing Solution
Activator	Aerobase Standard Activator

Specifications



Qualified Product List

Airbus	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

- Aerobase is compatible with Aviox® CF Primer 37124 and Aerodur® Sealer 42240.
- Observe the recoatability times of the previous layer of paint.
- Apply Aerobase on clean primer, sealer or Aerobase layer. 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 Aerobase.

Instruction for Use



Mixing Ratio (volume)

5 parts	Aerobase
1 part	Aerobase Curing Solution
1 part	Aerobase Standard Activator

- Allow products to acclimatize to room temperature before use.
- Stir or shake Aerobase thoroughly till all pigment is uniformly dispersed before adding the Aerobase Curing Solution.



- Add Aerobase Curing Solution and stir the catalyzed mixture thoroughly
- Add Aerobase Standard Activator and stir the catalyzed mixture again thoroughly.



Induction Time

Not applicable. The product can be used directly after mixing.



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

30 – 45 seconds ISO-Cup 4 for all colors
15 – 28 seconds Gardner Signature Zahn-Cup #2 for all colors.



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)

2 hours



Dry Film
Thickness
(DFT)

30 – 90 micron (µm) depending on the color to apply.
1.2 – 3.5 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

Aerobase 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 when environmental conditions fall outside of the recommended range.



Equipment

High pressure air-assist/airless (electrostatic spray) equipment, e.g. Graco Pro 4500

Fluid pressure 120 - 170 bar / 1800 - 2500 psi
Atomizing air pressure 4.0 - 5.0 bar / 58 - 72 psi
Flow rate 310 - 330 mL per minute
Tip size 0.33 mm / 0.013 inches, angle 60°

Air (Electrostatic) spray equipment, e.g. Graco Xs3 / Xs4

Atomizing air pressure 4.0 - 5.0 bar / 58 - 72 psi
Flow rate 320 - 360 mL per minute
Nozzle orifice 1.2 - 1.5 mm / 0,047 - 0.059 inch



Next generation spray equipment, e.g. HVLP / RVL P

Input air	Max. 3,1 bar / 45 psi
Fluid/pot pressure	0,3 - 1,4 bar / 5 to 20 psi
Tip size	1.2 - 1.4 mm / 0,047 – 0,055 inch



Number of Coats

Apply a homogeneous, wet coat to achieve a dry film thickness of 30 to 60 μm / 1,2 – 2,4 mils depending on the color. When industrial hiding is not achieved after one layer, an extra wet coat applied after 15 to 90 minutes flash off time may be necessary.



Cleaning of Equipment

Use Solvent Cleaning C 28/15 or Solvent Cleaning 98068. Because Aerobase is a fast drying base coat, it is important to clean the equipment as soon as possible after completion of the paint job.



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
(21°C/70°F)

Dry to dust:	1.5 - 2 hours
Dry to tape:	2 - 3 hours
Dry to sand:	3 hours

Aerobase over Aerobase	
Recoat minimum	3 hours
Recoat maximum	168 hours

Aviox® Clearcoat UVR over Aerobase	
Recoat minimum	3 hours
Recoat maximum	168 hours



Theoretical Coverage

25 m² per liter base material at 25 μm dry film thickness
1002 ft² per US gallon base material at 1.0 mil dry film thickness



Dry film weight

1.3 to 1.9 g/m²/ μm , depending on color
0.0073 to 0.0099 lbs/ft²/mil



Volatile Organic Compounds

Maximum 420 g/l
Maximum 3.5 lb/gal



Gloss (60°)

Not applicable



Color

Customer standard



Flash-point

Aerobase	>21°C /70°F
Aerobase Curing Solution	>21°C /70°F
Aerobase Standard Activator	>21°C /70°F



Storage

Store the product dry and at a temperature between 5 and 35°C / 41 and 95°F per AkzoNobel Aerospace Coatings specification. Store in the original unopened containers. Storage temperature may vary per OEM specification requirements. Refer to container label for specific storage life information.

Aerobase	18 months
Aerobase Curing Solution	24 months
Aerobase Standard Activator	24 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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