

Technical Data Sheet

Product Group

Characteristics



Product Information

Epoxy Top Coat

Aerowave 3003 is a low VOC, water-based, 2-component amine cured epoxy structural finish.

- Water-based technology
- Compatible with all products out of the Aerowave Series
- Designed for optimal mixing properties for both manual and plural mixing application
- Low VOC emission
- Low dry-film-weight (DFW)
- Resistance to aircraft hydraulic fluids and chemicals

Aerowave 3003 is a product part of the Aerowave Series which utilizes the latest water-based technology and sets the standard for minimum process times, reduced process cycle costs and environmental care.

Components



Base Aerowave 3003
Curing Agent Curing Solution 6007

Specifications



Qualified Product List

 Airbus
 AIMS 04-04-003

 Airbus
 AIMS 04-04-040

 Airbus
 AIMS 04-04-045

Product specifications change constantly, to ensure the most accurate information regarding specifications, please check our online qualified product list (QPL) at aerospace.akzonobel.com/products.

Surface Conditions



Cleaning

- Observe the recoat limitations of the relevant primer.
- Remove oil, grease and other contaminations carefully prior to application of the finish.
- Clean aged primer and finish and recondition by sanding using grade P320 sandpaper or an aluminum oxide non-woven abrasive pad to a uniform matt surface.
- Remove dust with e.g. tack rags just prior to application of the finish.

Instruction for Use



Mixing Ratio

	Volume	Weight
Aerowave 3003	1 part	100 parts
Curing Solution 6007	1 part	73 parts

When mixing <1L dose by weight.

- Allow products to acclimatize to room temperature before use.
- Homogenize Aerowave 3003 till all pigment is uniformly dispersed before adding the hardener.
- Add Curing Solution 6007 and stir the catalyzed mixture thoroughly for at least 60 seconds.
- Automated dispensing units in combination with plural mixing devises can be applied for Aerowave 3003.



Induction Time

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

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1 East Water Street, Waukegan, IL 60085, USA - Phone (847) 623 4200,

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Initial Spraying Viscosity (23°C/73°F)

35 – 65 seconds ISO Cup #4

17 – 30 seconds Gardner Signature Zahn Cup #2



Note

Stir or shake the mixed components thoroughly shortly before measuring the viscosity. 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. Flow-cup viscosity measurement for Aerowave 3003 will not be reliable due to air introduction during the shaking process. Only measure the flow-cup viscosity when mixed with a toothless mechanical stirrer and air introduction during the mixing process is avoided as much as possible. Entrapped air in the wet paint mixture will not negatively affect final appearance when spray applied.



Pot life (23°C/73°F)

4 hours at 23°C / 73°F

3 hours at 30°C / 86°F



Note

The end of pot life is not visible by means of viscosity increase. Please respect described pot life, and mind that pot life depends on the temperature.



Dry Film Thickness (DFT)

 $20 - 30 \mu m$ 0.8 - 1.2 mils

Application Recommendations



Conditions

Temperature: 15 – 35 °C 59 – 95 °F



Note

Relative Humidity: 25-80 %Aerowave 3003 may be applied in conditions outside the limits shown above. Care must be exercised to

ensure a satisfactory result. Please contact your local AkzoNobel Aerospace Coatings representative to determine the appropriate application techniques when environmental conditions fall outside of the recommended range.



Equipment Recommendation

Spray gun type	Product supply	Fluid Pressure	Nozzle orifice	Product flow	Dynamic air pressure at gun-inlet *
Conventional	NA	NA	1.2 – 1.5mm	350 mL/min ¹	4 – 4.5 bar / 58 – 65 psi²
HVLP / Next Generation	NA	NA	1.2 – 1.5mm	350 mL/min ¹	2 – 2.5 bar / 29 – 36 psi³
Air Atomizing (electrostatic)	NA	NA	1.2 – 1.5mm	350 mL/min⁴	4 – 4.5 bar / 58 – 73 psi²
Pressure Atomizing (electrostatic)	NA	NA	0.009 inch/60° 0.013 inch/60°	65 – 75 bar/1.02 kpsi 25 – 35 bar/0.43 kpsi	4 – 4.5 bar / 58 – 65 psi²

¹ Product Flow not applicable when using gravity/suction feed guns.

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² Dynamic Air Pressure at gun-inlet measured with an open trigger.

³ General advice to meet the HVLP / next generation spray gun requirements, please validate with your local authorities.

⁴ When using water-based products ensure you select suitable electrostatic equipment





Note

To avoid contamination of water-based / solvent-based coating products, dedicated water- / solvent-based spray equipment is advised. To apply water-based products, use non-corrosive spray equipment (e.g., stainless steel).



Number of Coats

Spray-apply a homogeneous, wet and closed coat in order to achieve a dry film thickness of $20-30\mu m/0.8-1.2$ mil.



Cleaning of Equipment

Selecting the correct cleaning solvent for cleaning the spray equipment (gun, hoses, pumps) will prevent coagulation or clogging of the paint material inside the equipment due to incompatibility. Clean and rinse the equipment with water directly after use. If necessary semi-cured material can be cleaned with organic solvents like cleaning solvent C 28/15, 98068 or Thinner C 25/90 S. In case of the switch from water-based to solvent-based always first clean and rinse with water, followed by two times rinsing with fresh Thinner C 25/90 S. Due to its chemical composition, this material is compatible with water.



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 to identify the best equipment settings to be used in optimizing the performance and appearance of the coating.

Physical Properties



Drying Times

	23°C/73°F, 55% RH	60°C/140°F	80°C/176°F
Surface Dry	30 minutes	15 minutes	10 minutes
Dry to Handle	2 hours	N/A	N/A
Chemical Resistant	48 hours	45 minutes	30 minutes

^{*}Substrate surface temperature

When forced cured, allow the paint 5-minute ambient flash-off time with enough air movement before entering the component into the oven in order to obtain the best results.

Recoat minimum*

When surface dry

Recoat maximum* 168 hours

168 hours. If a drying time of 168 hours is exceeded recondition the surface with grade P320 sandpaper or an aluminum oxide non-woven abrasive pad to a uniform matt surface.

*In combination with Aerowave Series products. In combination with solvent-based products the minimum

recoat time is 8 hours and the maximal recoat time is 48 hours without reconditioning.



Note

Curing of waterborne products depends on temperature, relative humidity, and airflow. Increased temperatures, low RH and efficient airflow can decrease the drying times significantly.



Theoretical Coverage

17 m² per liter ready to apply at 20 μm dry film thickness. 712 ft² per US gallon ready to apply at 0.8 mil dry film thickness.



Dry Film Weight

1.6 g/m²/µm 0.0085 lbs/ft²/mil



Volatile Organic Compounds < 120 g/L (1.0 lbs/gal) product ready to apply

< 250 g/L (2.1 lbs/gal) exempt water according to ASTM D-3960

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GU

Gloss (60°)

Maximum 75 GU



Color

M9001 Grey FSB16622 Grey



Flash Point

Aerowave 3003

>21°C / 70°F

Curing Solution 6007

>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 and shelf life may vary per OEM specification requirements. Refer to the container label for specific storage life information.

Shelf life 5 - 35°C (41 - 95°F)

Aerowave 3003

12 months

Curing Solution 6007

12 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.

Revision date: October 2023 (supersedes December 2021) - FOR PROFESSIONAL USE ONLY

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. Brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel