

Aerowave 2003

Technical Data Sheet

Product Group

Epoxy Primers.

Characteristics



Product
Information

Aerowave 2003 is a chrome free, water-based, 2-component, corrosion inhibiting amine cured epoxy primer.

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

Aerowave 2003 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



Curing Solution
Thinner /
Activator

Curing Solution 6005

Specifications



Qualified
Product List

AgustaWestland AWMS 28-002 WB CF Primer Ty. 1, Cl. 1, Gr. A

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

Surface Conditions



Cleaning

- Prime chemical conversion coatings and anodized parts in a fresh condition according the OEM guideline.
- Clean aged primer or finish and activate the substrate with e.g. Scotch-Brite® type A very fine to a uniform matt surface.
- Remove dust with e.g. tack rags prior to application of the primer.

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Instruction for Use



Mixing Ratio
(volume)

	Volume (v/v)	Weight (w/w) (<1L)
Aerowave 2003	3 parts	100 parts
Curing Solution 6005	1 part	28 parts

- **When mixing <1L dose by weight.**
- Allow products to acclimatize to room temperature before use.
- Homogenize Aerowave 2003 till all pigment is uniformly dispersed before adding the hardener
- Add Curing Solution 6005 and stir the catalyzed mixture thoroughly for at least 60 seconds.
Automated dispensing units in combination with plural mixing devices can be applied for Aerowave 2003.



Induction Time

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



Initial Spraying
Viscosity
(21°C/70°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.



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)

4 hours



Dry Film
Thickness
(DFT)

15 – 25 μm
0.6 – 1.0 mil



Note

The end of Pot Life is not visible by means of viscosity increase. Respect described Pot Life. Pot Life relates to temperature

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Application Recommendations



Conditions

Temperature: 15 – 35°C
59 – 95°F
Relative Humidity: 25 – 80%



Note

Aerowave 2003 may be applied in conditions outside of the 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 when environmental conditions fall outside of the recommended range.



Equipment

Air 1.2 – 1.6 mm nozzle orifice
HVLP 1.2 – 1.6 mm nozzle orifice
Air Electrostatic* 1.2 – 1.5 mm nozzle orifice
Airless/Air Assist .009 - .013 inch, angle 40° – 60°



Note

*) Use Electrostatic spray equipment designed for application of water based products.

To avoid contamination of water based – solvent based coating products it is advised to use dedicated water- / solvent-based spray equipment. For application of water based products use non corrosive spray equipment (e.g. stainless steel).



Number of Coats

Spray-apply a homogeneous, wet and closed coat.



Cleaning of Equipment

Clean the equipment with water directly after use. If necessary, semi-cured material remaining on the equipment can be cleaned with Solvent Cleaning C28/15 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.

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Physical Properties



Drying Times

	21°C/70°F -55%	60°C/140°F*	80°C/176°F*
Surface dry	1 – 2 hours	20 min.	10 min.
Dry to handle	4 hours	n.a.	n.a.
Chemical resistant	72 hours	45 min.	30 min.

*) Substrate surface temperature

When forced cured; allow the paint a 5 minutes ambient flash-off time with sufficient air movement before entering the oven in order to obtain the best results.

Recoat minimum*

When surface dry

Recoat maximum*

168 hours. If a drying time of 168 is exceeded recondition the surface with e.g. Scotch-Brite® type A very fine

*) 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 air flow. Increased temperatures, low RH and efficient airflow can decrease the drying times significantly.



Theoretical Coverage

30 m² per liter base material at 15 µm dry film thickness
1203 ft² per US gallon base material at 0.60 mil dry film thickness



Dry Film Weight

1.5 g/m²/µm
0.0078 lbs/ft²/mil



Volatile Organic Compounds

≤ 120 g/L (1.0 lb/gal) product ready to apply
≤ 250 g/L (2.1 lb/gal) exempt water according to ASTM D-3960



Gloss (60°)

Maximum 20 GU.



Color (visual match)

Light brown / grey.

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Flash-point

Aerowave 2003
Curing Solution 6005

>21°C / 70°F
>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. Periodical short time exposure (max. 48 hrs at a time) to higher temperatures (max. 40°C / 104°F) will not negatively influence the shelf life of the products.

Shelf life
5 - 25°C
(41 - 77°F)

Aerowave 2003 12 months
Curing Solution 6005 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.

Issue date: November 2015 (supersedes May 2015) - 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.

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