

Aerowave 5001

Technical Data Sheet

Product Group

Polyurethane topcoats

Characteristics



Product
Information

Aerowave 5001 is a water-based, 3-component, isocyanate cured polyurethane finish for interior and exterior use and is available in various gloss levels.

- Water-based technology
- Compatible with all products out of the Aerowave Series
- Low VOC emission
- Excellent appearance, MAR resistance and durability
- CARC resistance to STANAG 4360 Issue 2
- Various gloss ranges available
- Resistance to aircraft hydraulic fluids and chemicals

Aerowave 5001 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 6002
D.I. water or tap water*

*) Quality meets Council Directive [98/83/EC](#) of 3 November 1998 on the quality of water intended for human consumption.

Specifications



Qualified
Product List

Eurofighter	SP-J-513-C-0083, Type III, Class A SP-J-513-C-0083, Type III, Class B
Eurocopter	ECS-L-0097
UK MOD	BS 2X 34 Type A and B

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

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Surface Conditions



Cleaning

- Observe the recoatability limits of the relevant primer.
 - Aerowave 5001 is compatible with all products out of the Aerowave Series and most commonly used conventional and high solid primers.
 - Remove oil, grease and other contaminations carefully prior to application of the finish.
 - 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 prior to application of the primer.

Instruction for Use



Mixing Ratio
(**Matt and semi-gloss**)

	Volume (v/v)	Weight (w/w)
Aerowave 5001	100 parts	100 parts
Curing Solution 6002	30 parts	25 parts
Reduce to spraying viscosity with maximum:		
D.I. water or tap-water	20 parts	20 parts



Mixing Ratio
(**Gloss**)

	Volume (v/v)	Weight (w/w)
Aerowave 5001	100 parts	100 parts
Curing Solution 6002	40 parts	33 parts
Reduce to spraying viscosity with maximum:		
D.I. water or tap-water	20 parts	20 parts

- Allow products to acclimatize to room temperature before use.
- Shake or stir the Aerowave 5001 till all pigment is uniformly dispersed before adding hardener.
- Add Curing Solution 6002 and stir the catalyzed mixture thoroughly for at least 2 minutes; mechanical mixing is preferred.
- Add D.I. water or tap water and stir again till a homogeneous mixture for at least 2 minutes.



Induction Time

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



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

70 – 90 seconds ISO-Cup 4.
32 – 40 seconds Gardner Signature Zahn-Cup #2

Note: Stir or shake the *mixed* components thoroughly shortly before measuring the viscosity.

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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)

35 – 55 μm
1.6 – 2.2 mil



Note

Respect described pot life. Pot life depends upon temperature!

Application Recommendations



Conditions

Temperature: 15 – 35°C
59 – 95°F
Relative Humidity: 35 – 70%



Note

Aerowave 5001 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

Air 1.2 – 1.4 mm nozzle orifice
HVLP 1.2 – 1.4 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).

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	Number of coats	Spray a homogeneous uniform wet coat, followed after 2 – 10 minutes flash-off time by another uniform wet 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.									
Physical Properties											
	Drying Times	<table border="0"> <tr> <td></td> <td>21°C/70°F -55% RH</td> <td>70°C/158°F*</td> </tr> <tr> <td>Surface dry</td> <td>3 hrs</td> <td>30 mins</td> </tr> <tr> <td>Dry to handle</td> <td>10 hrs</td> <td>60 mins</td> </tr> </table>		21°C/70°F -55% RH	70°C/158°F*	Surface dry	3 hrs	30 mins	Dry to handle	10 hrs	60 mins
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Dry to handle	10 hrs	60 mins									
<p>*) Substrate surface temperature</p> <p>When forced cured; allow the paint a 15 - 30 minutes ambient flash-off time with sufficient air movement before entering the oven in order to obtain the best results.</p>											
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Recoatable maximum	48 hrs. If a drying time of 48 hrs is exceeded recondition the surface with e.g. Scotch-Brite® type A very fine										
	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	9 m ² per liter base material at 50 µm dry film thickness.									

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	Dry Film Weight	<1.5 g/m ² /μm <0.0078 lbs/ft ² /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°)	Matt finish: < 2 g.u. at 60° angle (dark colors only) Matt finish: < 5 g.u. at 60° angle Semi gloss finish: 15 – 25 g.u. at 60° angle Semi gloss finish: 30 – 45 g.u. at 60° angle (Eurocopter) Gloss finish: >85 g.u. at 60° angle
	Color	Available colors on request.
	Flash-point	Aerowave 5001 >21°C / 70°F Curing Solution 6002 >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 (21°C/70°F and 55% RH)	Aerowave 5001 Curing Solution 6002	12 months 18 months
	Note	Do not seal the containers with the paint mixture. Danger of pressure build-up!

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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