

Aerowave 2002

Technical Data Sheet

Product Group

Epoxy Primer

Characteristics



Product Information

Aerowave 2002 is a low VOC, non-inhibiting, chrome free, water-based, 2- component amine cured epoxy primer.

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

Aerowave 2002 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 2002
Curing Agent	Curing Solution 6005

Specifications



Qualified Product List

Airbus Canada	A2MS 565-014, Class A Grade B
Airbus	AIMS 04-04-002
Airbus	AIMS 04-04-035
Airbus	AIMS 04-04-045
Bombardier	BAMS 565-014, Class A Grade B
Embraer	MEP 10-118
Eurofighter	SP-J-513-A-0013 Type III Class A

Surface Conditions



Surface Preparation/
Cleaning

Ensure that release agents are removed from the composite substrate prior to further surface pretreatments.

Sand the composite substrate to a uniform matt surface and blow the panels dust-free using compressed air.

Degrease the surface using the wipe on – wipe off method using a nonaggressive cleaner, e.g. water or isopropyl alcohol (IPA).

When forced curing is applied to the composite substrate, it is strongly advised to degas the substrate in an oven prior to primer application.

Remove dust with e.g. tack rags just prior to application of the primer.

Instruction for Use




Spray Application (Mix Ratio)


	Volume	Weight
Aerowave 2002	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 2002 until 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 2002.


Aerowave 2002


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

 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 2002 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 as described, and mind that pot life depends on the temperature.

 Dry Film Thickness (DFT) 15 – 25 µm
0.6 – 1 mil

Application Recommendations

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

 Note Aerowave 2002 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	N/A	N/A	1.2 – 1.5mm	350 mL/min ¹	4 – 4.5 bar / 58 – 65 psi ²
HVLP / Next Generation	N/A	N/A	1.2 – 1.5mm	350 mL/min ¹	2 – 2.5 bar / 29 – 36 psi ³
Air Atomizing (electrostatic)	N/A	N/A	1.2 – 1.5mm	350 mL/min ⁴	4 – 4.5 bar / 58 – 73 psi ²
Pressure Atomizing (electrostatic)	N/A	N/A	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 psi ²

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

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 it is advised to use dedicated water- / solvent-based spray equipment. For application of water based products use noncorrosive spray equipment (e.g.

Aerowave 2002



stainless steel).



Number of Coats

Spray-apply a homogeneous, wet and closed coat in order to achieve a dry film thickness of 15 – 25 µm / 0.6 – 1.0 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 C25/90S.



Note

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.

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*

* Elevated temperature dry times refer to substrate surface temperature. When force 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.

In combination with Aerowave Series products, Aerowave 2002 is recoatable when surface dry with maximum recoat time of 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 solvent-based products, the minimum recoat time is 8 hours and the maximum 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

23 m²/L ready-to-spray paint at 15 µm dry film thickness
944 ft²/gal ready-to-spray paint at 0.6 mil dry film thickness



Dry Film Weight

1.7 g/m²/µm
0.0086 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



Gloss (60°)

Maximum 20 GU

Aerowave 2002

	Color	RAL 1014 Beige	
	Flash Point	Aerowave 2002	>21°C / 70°F
		Curing Solution 6005	>21°C / 70°F
	Shelf life	Aerowave 2002	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.

Revision date: October 2023 (supersedes March 2023) - 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