Aerowave® 5001 ARC

Product Group

Polyurethane Topcoats

Characteristics

Product Information

Aerowave® 5001 ARC is a water-based, 3-component, isocyanate cured polyurethane abrasion resistant coating.

- Water-based technology
- Compatible with all products out of the Aerowave® Series
- Low VOC emission
- Infrared reflecting (IRR)
- Resistance to aircraft hydraulic fluids and chemicals
- Minimal abrasion on areas highly exposed to wear and friction
- Minimal dirt pick-up
- Impact and stone chip resistant (rough field operations)
- Rapid film build-up with standard air spray techniques.

Aerowave® 5001 ARC 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

Hardener
Thinner or
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-A-0014, Issue 4

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

Surface Conditions

Cleaning

- Observe the recoatability limits of the relevant primer.
- Aerowave® 5001 ARC 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

Aerowave 5001 ARC	Volume (v/v)	Weight (w/w)
Curing Solution 6002	100 parts	100 parts
	30 parts	25 parts

Reduce to spraying viscosity with maximum:

D.I. water or tap-water	20 parts	20 parts

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Induction Time	Not applicable. Product can be used directly after mixing.
Initial Spraying Viscosity (21ºC/70ºF)	20-28 seconds ISO-Cup 6
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. Aerowave 5001 ARC is not optimal for flow-cup viscosity measurements due to tixotropic behavior of these coating types.
Pot Life (21°C/70°F – 55% RH)	2 hours
Dry Film Thickness (DFT)	175-225 µm 6.9-8.9 mil
Note	Respect described pot life. Pot life depends upon temperature!

Application Recommendations

Conditions	Temperature:	15 – 35ºC 59 – 95ºF
	Relative Humidity:	25 – 80%
Note	Aerowave® 5001 ARC 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. Continue this process until the required layer thickness is achieved.
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 21°C/70°F	Dry Through	16 hrs
	When forced cured; allow the paint a 15 to 30 minutes ambient flash-off time with sufficient air movement before entering the oven in order to obtain the best results.	
	Recoatable minimum	When surface dry
	Recoatable maximum	48 hrs; if the ambient 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	3 m2 per liter base material at 200 µm dry film thickness 129 ft2 per US gallon base at 7.9 mil	
Dry Film Weight	1.4 g/m2/µm 0.0071 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 (60º)	< 10 g.u. at 60° angle	
Color	Available colors on request	
Flash-point	Aerowave® 5001 ARC	>21ºC / 70ºF
	Curing Solution 6002	>21ºC / 70ºF

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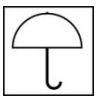

Storage

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 ARC	12 months
Curing Solution 6002	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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