

# Aerodur 3002 Clearcoat

## Technical Data Sheet

### Product Group

### Polyurethane Top Coat

### Characteristics



Product Information

Aerodur 3002 Clearcoat is a chemically cured, long-life clear coat for use in a base coat / clear coat system formulated to provide a uniform appearance in one or two closed wet coats. This clear coat formulation, in combination with the specified Aerodur 3001 Basecoat provides cycle time reduction, superior chemical and stain resistance, flexibility, and weathering performance. This system provides a durable long-lasting, protective and decorative finish that exceeds typical OEM requirements for exterior aircraft performance.

### Components



Base	Aerodur 3002G0000X
Curing Solution	Curing Solution CS6003
Activator	Activator A9050
Activator	Activator A9052
Activator	Activator A9053
Activator	Activator A9054
Activator	Activator A9055
Activator	Activator A9056

### Specifications



Qualified Product List

Airbus Canada	A2MS 565-018
Boeing	BMS 10-125, TY II, GR D
Boeing	BMS 10-125, TY IV, GR D
Boeing	BMS 10-125, TY VII, GR D
Boeing	BMS 10-72, TY IX
Boeing	BMS 10-72, TY X
Bombardier Canadair	BAMS 565-018
Comac	CMS-CT-102
Embraer	MEP 10-125, TY II
SAE International	AMS3095
deHavilland	DHMS C4.30

### Surface Conditions



Surface Preparation/  
Cleaning

- The minimal overcoat time of the Aerodur 3001 Basecoat with the Aerodur 3002 Clearcoat is 2 hours.
- A9003 activator for Aerodur 3001 Basecoat requires 6 hours prior to recoating.
- Apply Aerodur 3002 Clearcoat only on a clean base coat.
- Ensure the base coat is free from contamination from layout, scuffing, and masking by cleaning the surface.
- Use an appropriate mild cleaning solvent like isopropyl alcohol, AkzoNobel Ultra Prep, or M600 where applicable.
- Remove dust with clean tack rags just prior to application of Aerodur 3002 Clearcoat.

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## Instruction for Use



Spray Application (Mix Ratio)

	Volume	Weight
Aerodur 3002G0000X	2 parts	100 parts
Curing Solution CS6003	2 parts	110 parts
Activator*	1 part	43 parts

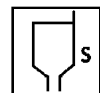
\* Activator options: Activator A9050, Activator A9052, Activator A9053, Activator A9054, Activator A9055, Activator A9056

- Allow products to acclimatize to room temperature before use.
- Stir or shake selected Aerodur 3002G0000X base thoroughly to obtain a homogeneous product before adding the curing solution.
- Add Curing Solution CS6003 and stir the catalyzed mixture thoroughly.
- Add Activator A905X and stir the catalyzed/activated mixture thoroughly.



Induction Time

15 minutes



Initial Spraying Viscosity  
(25°C/77°F)

15 – 30 seconds Gardner Signature Zahn Cup #2  
18 – 37 seconds Gardner EZ - Cup #2  
11 – 70 seconds Gardner Ford - Cup #4



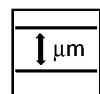
Note

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 (25°C/77°F)

Activator 9050	0.75 hours
Activator 9052	2 hours
Activator 9053	4 hours
Activator 9054	2 hours
Activator 9055	4 hours
Activator 9056	2 hours



Dry Film Thickness (DFT)

30 – 50  $\mu\text{m}$   
1.2 – 2 mils

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## Application Recommendations



Conditions

Temperature: 15-35°C / 59-95°F  
Relative Humidity: 35 - 75%

### Activator Guidelines:

- A9050 Touch-up Activator  
59°F-70°F / 15°C-21°C, 40-80% RH
- A9052 Standard Activator  
70°F - 80°F / 21° - 27°C, 45-55% RH  
(for limited surface area)
- A9053 Warm, Humid Activator  
> 80°F /27°C and > 65% RH  
(for full aircraft painting)
- A9054 Cool Weather Activator  
60°F - 70°F / 15°C - 21°C, 40-80% RH  
(for full aircraft painting)
- A9055 Standard Full Body Extended Cure Activator  
70°F - 80°F / 21°C - 27°C, 45-55% RH  
(for full body painting OEM and Maintenance)
- A9056 Standard Full Body Normal Cure Activator  
70°F - 80°F / 21°C - 27°C, 45-55% RH  
(for full body painting OEM and Maintenance)



Note

Aerodur 3002 Clearcoat 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	1.2-1.4 mm	N/A	3-5 bar / 43-73 psi
HVLP / Next Generation	N/A	N/A	1.2-1.4 mm	N/A	2-2.5 bar / 29-36 psi**
Air Atomizing (electrostatic)	N/A	N/A	1.2-1.5 mm	230-350 ml/min	4-5 bar /58-73 psi
Pressure Atomizing (electrostatic)	N/A	65-75 bar / 1.02 kpsi, 25-35 bar / 0.43 kpsi	0.009 inch/60°, 0.013 inch/60°	260-300 mL/min	4-4.5 bar / 58-65 psi

\*Measured with an open trigger

\*\*General advice to meet the HVLP / next-generation spray gun requirements. Please validate with your local authorities.



Number of Coats

Apply one or two closed wet coats, with proper flash-off between coats, to a dry film thickness of 30 – 50 µm (1.2-2.0 mils).



Note

Flash-off time refers to the elapsed time between the start of the first coat application and the start of the second coat application. Paint should have very little transfer when touched to indicate the paint is ready for application of the next coat



Cleaning of Equipment

Use TR-15 for clean-up of electrostatic equipment and/or TR-19 or C28/15 for other spray equipment.

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Note

The quality of the application of all coatings will be influenced by the spray equipment chosen and the temperature, humidity, and airflow 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

(25°C / 77°F, 55% RH)

Dry to tape	2 – 3 hours	Activator 9050
	5 – 6 hours	Activator 9052
	15 – 16 hours	Activator 9053
	4 – 5 hours	Activator 9054
	15 – 16 hours	Activator 9055
Dry to touch	11 – 12 hours	Activator 9056
	15 – 20 minutes	Activator 9050
	1 – 1.5 hours	Activator 9052
	9 – 10 hours	Activator 9053
	75 – 90 minutes	Activator 9054
Recoat time, minimum	3 – 3.5 hours	Activator 9055
	2.5 – 3 hours	Activator 9056
	30 minutes	
Recoat time, maximum	48 hours	

Aerodur 3002 Clearcoat is recoatable within 48 hrs. If a drying time of 48 hrs is exceeded, recondition to a uniform matt surface with grade P400 sanding paper or an aluminum oxide non-woven abrasive pad type fine or very fine.



Note

Dry times and recoat times will vary depending on combinations of temperature, humidity and airflow. Recoat time applies to each activator at conditions identified.



Theoretical Coverage

20.9m<sup>2</sup> per liter ready to apply at 25 µm dry film thickness.  
851 ft<sup>2</sup> per US gallon ready to apply at 1 mil dry film thickness.



Dry Film Weight

1.16 g/m<sup>2</sup>/µm  
0.0060 lbs/ft<sup>2</sup>/mil



Volatile Organic Compounds

Maximum 420 g/l  
Maximum 3.5 lbs/gal



Gloss (60°)

Minimum 90 GU



Color

Clear (BAC 900)



Flash Point

Aerodur 3002G0000X	27°C / 81°F
Curing Solution CS6003	39°C / 102°F
Activator A9050	27°C / 80°F
Activator A9052	27°C / 80°F
Activator A9053	27°C / 80°F

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Activator A9054	27°C / 80°F
Activator A9055	27°C / 80°F
Activator A9056	27°C / 80°F



### Storage

Store the product dry and at a temperature between 5 and 38°C / 41 and 100°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 - 38°C (41 - 100°F)

Aerodur 3002G0000X	24 months
Curing Solution CS6003	24 months
Activator A9050	24 months
Activator A9052	24 months
Activator A9053	24 months
Activator A9054	24 months
Activator A9055	24 months
Activator A9056	24 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 2024 (supersedes February 2024) - 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