AkzoNobel
Aerospace Coatings

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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Aerodur 3002 Clearcoat

Instruction for Use

Spray Application

	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 (25ºC/77ºF)

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)

25 – 37.5 µm
1 – 1.5 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

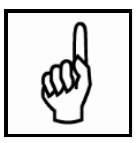
A9052 Standard Activator
70°F - 80°F / 21°- 27°C, 45-55% RH
(for limited surface area)

A9053 Warm, Humid Activator
> 80ºF /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	75-90 bar / 1.0-1.3 kpsi	0.009-0.013 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 25 – 37.5 µm (1.0-1.5 mils).

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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Aerodur 3002 Clearcoat

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

(25ºC / 77ºF, 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
	11 – 12 hours	Activator 9056
Dry to touch	15 – 20 minutes	Activator 9050
	1 – 1.5 hours	Activator 9052
	9 – 10 hours	Activator 9053
	75 – 90 minutes	Activator 9054
	3 – 3.5 hours	Activator 9055
	2.5 – 3 hours	Activator 9056
Recoat time, minimum	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

20.9m² per liter ready to apply at 25 µm dry film thickness.
851 ft² per US gallon ready to apply at 1 mil dry film thickness.

Dry Film Weight

1.16 g/m²/µm
0.0060 lbs/ft²/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	27ºC / 81ºF
Curing Solution CS6003	39ºC / 102ºF
Activator A9050	27ºC / 80ºF

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Activator A9052	27ºC / 80ºF
Activator A9053	27ºC / 80ºF
Activator A9054	27ºC / 80ºF
Activator A9055	27ºC / 80ºF
Activator A9056	27ºC / 80ºF

Storage

Store the product dry and at a temperature between 5 and 38ºC / 41 and 100ºF 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	12 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: February 2024 (supersedes August 2023) - FOR PROFESSIONAL USE ONLY

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