Aerodur Finish C 21/100

Technical Data Sheet

Product Group

Polyurethane Top Coat

Characteristics

Product Information

Aerodur Finish C 21/100 is an isocyanate cured universal polyurethane high gloss finish for structural use.
- Excellent gloss retention
- Resistant to staining
- Resistant to aircraft hydraulic fluids and chemicals

Components

Base	Aerodur Finish C 21/100
Curing Solution	Hardener S 66/22 R
Thinner	Thinner C 25/90 S
Thinner	Thinner 98064 (warm conditions)
Thinner	Thinner 96184 (warm conditions)

Specifications

Qualified Product List

Airbus	AIMS 04-04-003
Airbus	AIMS 04-04-040
Airbus	AIMS 04-04-041
Airbus	AIMS 04-04-045
Airbus	AIMS 04-04-046

Product specifications change constantly, to ensure the most accurate information regarding specifications, please check our online qualified product list (QPL) at aerospace.akzonobel.com/products.

Surface Conditions

Surface Preparation/ Cleaning

Observe the recoat limitations of the relevant primer.

Remove oil, grease and other contaminations carefully prior to application of the finish.

Clean aged primer and finish and recondition by using grade P320 sanding paper or an aluminum oxide non-woven abrasive pad to a uniform matt surface.

Remove dust with clean tack rags just prior to application of the finish.

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Instruction for Use

Spray Application

	Volume	Weight
Aerodur Finish C 21/100	4 parts	100 parts
Hardener S 66/22 R	4 parts	69 parts
Thinner*	2 – 3 parts	30 – 49 parts

* Thinner options: Thinner C 25/90 S, Thinner 98064 (warm conditions), Thinner 96184 (warm conditions)

- Allow products to acclimatize to room temperature before use.
- Homogenize Aerodur Finish C 21/100 till all pigment is uniformly dispersed before adding the hardener.
- Add Hardener S 66/22 R and stir the catalyzed mixture thoroughly.
- Add Thinner C 25/90 S, 98064 or 96184 and stir again till a homogeneous mixture.

Induction Time

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

Initial Spraying Viscosity (23°C/73°F)

36 – 42 seconds ISO Cup #3
27 – 29 seconds Gardner Signature Zahn Cup #1

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 (23ºC/73ºF)

8 hours.

Dry Film Thickness (DFT)

20 – 30 µm
0.8 – 1.2 mils

Application Recommendations

Conditions

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

Note

Aerodur Finish C 21/100 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.

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Equipment Recommendation

Spray gun type	Product supply	Fluid Pressure	Nozzle orifice	Product flow	Dynamic air pressure at gun-inlet *
Conventional	N/A	N/A	1.4 – 1.6 mm	300 mL/min[1]	4 – 4.5 bar / 58 – 65 psi[2]
HVLP / Next Generation	N/A	N/A	1.4 – 1.6 mm	300 mL/min[1]	2 – 2.5 bar / 29 – 36 psi[3]
Air Atomizing (electrostatic)	N/A	N/A	1.5 mm	300 mL/min	4 – 4.5 bar / 58 – 65 psi[2]
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°	N/A	4 – 4.5 bar / 58 – 65 psi[2]

Note

[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.

Number of Coats

Spray-apply a homogeneous, wet and closed coat in order to achieve a dry film thickness of 20 – 30µm / 0.8 – 1.2 mils. If a higher layer thickness is required, allow a 30-minute flash-off time before the application of the subsequent layer.

Cleaning of Equipment

Solvent Cleaning C 28/15 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 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	2 hours	NA	NA
Dry to Handle	6 – 8 hours	NA	NA
Chemical Resistant	48 hours	2 hours	1 hour

Recoatable Minimum When surface dry.
Recoatable Maximum 72 hours. If a drying time of 72 hours is exceeded recondition the surface with grade P320 sandpaper or an aluminum oxide non-woven abrasive pad to a uniform matt surface.

Substrate surface temperature.
When forced cured; allow the paint 15-minute ambient flash-off time with enough air movement before entering the component into the oven, in order to obtain the best results.

Note

Curing of solvent and water-based products depends on temperature, relative humidity and air flow. Increased temperatures, low RH and efficient airflow can decrease the drying times significantly.

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Theoretical Coverage	15 m² per liter ready to apply at 20 µm dry film thickness. 602 ft² per US gallon ready to apply at 0.8 mil dry film thickness.
Dry Film Weight	1.7 g/m²/µm 0.0078 lbs/ft²/mil
Gloss (60°)	Minimum 90 GU
Color	Limited colors available for use in structural application.

Flash Point

Aerodur Finish C 21/100	<21ºC / 70ºF
Hardener S 66/22 R	>21ºC / 70ºF
Thinner C 25/90 S	<21ºC / 70ºF
Thinner 98064 (warm conditions)	>21ºC / 70ºF
Thinner 96184 (warm conditions)	<21ºC / 70ºF

Storage

Store the product dry and at a temperature between 5 and 35ºC / 41 and 95ºF 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 - 35°C (41 - 95°F)

Aerodur Finish C 21/100	24 months
Hardener S 66/22 R	24 months
Thinner C 25/90 S	36 months
Thinner 98064 (warm conditions)	36 months
Thinner 96184 (warm conditions)	36 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.

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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. Brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel

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