

Alumigrip 4400 Base Coat

Solid and Effect Colors

Technical Data Sheet

Product Group

High Solids Polyurethane Topcoat

Characteristics



Product
Information

- Alumigrip Base Coat is a 3-component, high solids, durable, polyurethane base coat, formulated to exceed the performance and appearance requirements of the general aviation (GA) industry. The Alumigrip 4400 Base Coat should be used with Alumigrip 4450 Clear Coat as part of a base coat / clear coat system.
- Designed to meet the rigorous requirements of the MIL-PRF-85285 specification.
- Base coat / clear coat system helps reduce cycle time.
- Low VOC; high solids technology.
- Resistant to military and commercial aircraft fluids.
- Solvent resistant.

Components



Curing Solution
Activator

Alumigrip 4400 Solid Color Coat (4400GXXXXX)
Alumigrip 4400 Effect Color Coat (4400E82XXX) Mica, 2 stage effect
(4400E83XXX) Mica, 3 stage effect
(4400E99XXX) Aluminum, 2 and 3 stage

Curing Solution CS4904

A4956: Standard
A4957: High Temperature High Humidity
A4965: Fast Stripe – Spot Repair
A4967: Cool Weather

See application recommendations, page 3.

Specifications



Qualified
Product List

AkzoNobel Aerospace Coatings	Certification
Embraer	MEP-10-125 TY I (solid colors only)
Gulfstream	GMS 5008 (reference ECM 20001)
Hawker Beechcraft	BS22455

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

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Surface Conditions



Cleaning

- Surface pretreatment is an essential part of the painting process.
- Alumigrip Base Coat is compatible with most commonly used AkzoNobel Aerospace Coating primers, however we advise to use the following primers / surfacers:
 - Alumigrip 10P8-11
 - Alumigrip 10P30-8
 - Alumigrip 4001
 - Alumigrip 4144 (Europe only)
 - 37035A
 - Aerowave 2001 Structural Primer
- Observe the recoat times of the relevant primer.
- Apply Alumigrip 4400 Base Coat on clean primer. Remove oil, grease and other contamination prior to application.
- 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 just prior to application of Alumigrip Base Coat

Instruction for Use



Mixing Ratio
(volume)

- | | |
|----------|--|
| 2 parts | Alumigrip 4400 Base Coat (4400GXXXXX or 4400EXXXXX) |
| 1 part | Curing Solution CS4904 |
| 1 part | Activator A4956, A4957, A4965, or A4967 |
| 0.1 part | (Optional) TR114 or TR115 can be added to improve viscosity and leveling.
TR114 recommended for temperatures above 70°F/21°C
TR115 recommended for temperatures below 70°F/21°C |
- Allow products to acclimatize to room temperature before use.
 - Stir or shake Alumigrip 4400 Base Coat thoroughly until the product is uniformly homogenized before adding the curing solution.
 - Add the Curing Solution CS4904 and stir the catalyzed mixture thoroughly.
 - Add the Activator A4956, A4957, A4965, or the A4967 and stir the activated mixture again thoroughly.



Induction Time

10 minutes

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

16 – 25 seconds Signature Zahn-Cup#2



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)

2.0 – 2.5 hours, depending on activator selected.
A4956 and A4965: 2 hours
A4957 and A4967: 2.5 hours



Dry Film
Thickness
(DFT)

25.0 – 37.5 micron (μm)
Gloss: 1.0 – 1.5 mils
Effect : 1.0 – 1.5 mils

Application Recommendations



Conditions

	<u>A4956</u>	<u>A4957</u>	<u>A4965</u>	<u>A4967</u>
Temperature:	65 – 85°F 18 – 29°C	≥80°F ≥27°C	50 – 80°F 10 – 27°C	60 – 85°F 16 – 30°C
Relative Humidity:	15 – 80%	≥70%	15 – 65%	15 – 85%
Time Between Coats:	15 – 45 min.	15 – 45 min.	5 – 20 min.	5 - 20 min.









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 for optimizing the performance and appearance of the coating. Alumigrip 4400 Base Coat may be applied in conditions outside of the limits shown above. Exercise care to ensure a satisfactory result. Please contact your local AkzoNobel Aerospace Coatings representative to determine the proper application techniques and choice of activators when environmental conditions fall outside of the recommended range.







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	Equipment	<p>Air 1.2 – 1.4 mm nozzle orifice HVLP 1.2 – 1.4 mm nozzle orifice LP Electrostatic 1.2 – 1.5 mm nozzle orifice Air Electrostatic .009 – .013 in. nozzle orifice Use of TR114 is recommended when using electrostatic equipment</p>
	<p>Number of coats Two Stage Colors</p>	<p>- Alumigrip 4400 Solid Color Coat (4400GXXXX) - Alumigrip 4400 Effect Color Coat (4400E82XXX) and (4400E99XXX) Apply 2 even wet coats with recommended flash time (depending on the activator chosen) in between coats or one cross coat until full hiding is achieved.</p>
	<p>Number of coats Three Stage Colors</p>	<p>- Alumigrip 4400 Effect Color Coat (4400E83XXX) Apply a single uniform wet coat of Alumigrip 4400 Base Coat Effect, with recommended flash time in between coats depending on the activator chosen, followed by a cross coat. The total cross coats should achieve the desired uniform effect.</p>
<p>(Apply the underlayment or base color with the 2 even wet coats with recommended flash time in between coats or one cross coat until full hiding is achieved as mentioned above, before the effect coating is applied.)</p>		
	<p>Note: Film Thickness</p>	<p>Some colors may require a slightly higher film thickness to achieve hide.</p>
	<p>Cleaning of Equipment</p>	<p>TR-19 or MEK</p>
<p>Physical Properties</p>		
	<p>Drying Times (25 +/- 2°C / 77 +/- 2°F, 55 +/- 5% RH)</p>	<p>Activator: A4956: Standard A4957: High Temperature High Humidity A4965: Fast Stripe – Spot Repair A4967: Cool Weather</p>

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	<p>Note</p>	<p>Dry times will vary depending combinations of temperature, humidity and airflow. For additional information regarding conditions outside of the above perimeters, please contact your local technical service representatives.</p> <p>Recondition aged base coat (5 days if not using 4450 or 7 days if using 4450) with Scotch-Brite® type A very fine to a uniform matt surface or 320 grit sandpaper. If excess paint is removed, we recommend a reapplication of the initial 4400 be applied to establish a uniform coat and full hide.</p>																														
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	<p>Theoretical Coverage</p>	<p>Solid Colors 19.09 m² per liter ready to apply at 25.4 µm dry film thickness 778 ft² per US gallon ready to apply at 1.0 mil dry film thickness</p> <p>Effect Colors 19.51 m² per liter ready to apply at 25.4 µm dry film thickness 795 ft² per US gallon ready to apply at 1.0 mil dry film thickness</p>																														
	<p>Dry Film Weight</p>	<table border="1"> <thead> <tr> <th>Solid Colors</th> <th>Effect colors</th> </tr> </thead> <tbody> <tr> <td>39.7 g/m²/25.4 µm 0.0081 lbs/ft²/1.0 mil</td> <td>33.6 g/m²/ 25.4 mm 0.0069 lbs/ft²/1.0 mil</td> </tr> </tbody> </table>	Solid Colors	Effect colors	39.7 g/m ² /25.4 µm 0.0081 lbs/ft ² /1.0 mil	33.6 g/m ² / 25.4 mm 0.0069 lbs/ft ² /1.0 mil																										
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	Gloss (60°)	85 max GU
	Color	Various
	Flash-point	<p>Alumigrip 4400 Solid (4400GXXXX) *Refer to MSDS (see note)</p> <p>Alumigrip 4400 Effect (4400EXXXX) *Refer to MSDS (see note)</p> <p>Alumigrip Curing Solution 4904 (CS4904) 25°F / -4°C</p> <p>Alumigrip 4956 (A4956) 44°F / 7°C</p> <p>Alumigrip 4957 (A4957) 44°F / 7°C</p> <p>Alumigrip 4965 (A4965) 93.2°F / 34°C</p> <p>Alumigrip 4967 (A4967) 93.2°F / 34°C</p>
	Note	*Refer to Material Safety Data Sheet (MSDS) for each individual base component for specific flashpoint data.
	Storage	Store the product dry and at a temperature between 5 and 38°C / 40 and 100°F per AkzoNobel Aerospace Coatings specification. Store in the original unopened containers. Storage temperature may vary per OEM specification requirements. Refer to container label for specific storage life information.
	Shelf life 5 - 38°C (40 - 100°F)	24 months per AkzoNobel Aerospace Coatings commercial specification. Shelf life may vary due to OEM specification requirements. Refer to container label for specific shelf life information.
	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.

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