Alumigrip 4400 Base Coat
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

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

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Alumigrip 4400 Base Coat
Solid and Effect Colors

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

- 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.
- Product SRA-9009 is available to facilitate coating repairs by lowering the coating surface tension and thinning the paint for finer atomization. Ask your Technical Service representative for special instructions on using SRA-9009.

Induction Time: 10 minutes

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Initial Spraying Viscosity (25ºC/77ºF)	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 (25ºC/77ºF)	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
Note	Some colors with low opacity may need a layer thickness of up to 125 µm / 5 mils

Application Recommendations

Conditions

	A4956	A4957	A4965	A4967
Temperature:	65 – 85ºF 18 – 29ºC	≥80ºF ≥27ºC	50 – 80ºF 10 – 27ºC	60 – 85ºF 16 – 30ºC
Relative Humidity:	15 – 80%	≥70%	15 – 65%	15 – 85%
Flash Time:	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 in order to identify the best equipment settings to be used in optimizing the performance and appearance of the coating. Alumigrip

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4400 Base Coat may be applied in conditions outside of 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 and choice of activators 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
LP Electrostatic	1.2 – 1.5 mm nozzle orifice
Air Electrostatic	.009 – .013 in. nozzle orifice

Number of coats
Two Stage
Colors

- Alumigrip 4400 Solid Color Coat (4400GXXXXX)
- Alumigrip 4400 Effect Color Coat (4400E82XXX) and (4400E99XXX)

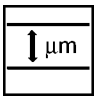
Apply 2 even wet coats with recommended flash time (depending on the activator chosen) in between coats or one cross coat until full hiding is achieved.

Number of coats
Three Stage
Colors

- 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.

(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).



Dry Film
Thickness
(DFT)

Some colors may require a slightly higher film thickness to achieve hide.

Cleaning of
Equipment

TR-19 or MEK

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Physical Properties

Drying Times (25 +/- 2ºC / 77 +/- 2ºF, 55 +/- 5% RH)

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

Drying Times Ambient Conditions (25 +/- 2ºC / 77 +/- 2ºF, 55 +/- 5% RH)

Activator	A4956	A4957	A4965	A4967
Dry to tape	3.5 - 5.5 hrs	4.0 - 6.0 hrs	0.75 - 2.0 hrs	1.0 - 2.0 hrs
Dry to touch	2.0 - 3.0 hrs	3.0 - 4.0 hrs	0.50 - 2.0 hrs	1.0 - 2.0 hrs
Full cure	7 days	7 days	7 days	7 days

Note

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.

Activator Reference

Parts and components	A4965 or A4967
Full Body (Assembled)	A4956, A4957, or A4967
Repair	A4965, do not heat cure
Stripe	A4965 or A4967

Theoretical Coverage

Solid Colors
19.09 m^2 per liter ready to apply at 25.4 µm dry film thickness
778 ft^2 per US gallon ready to apply at 1.0 mil dry film thickness
Effect Colors
19.51 m^2 per liter ready to apply at 25.4 µm dry film thickness
795 ft^2 per US gallon ready to apply at 1.0 mil dry film thickness

Dry Film Weight

Solid Colors	Effect colors
39.7 g/m^2/25.4 µm	33.6 g/m2/ 25.4 mm
0.0081 lbs/ft^2/1.0 mil	0.0069 lbs/ft2/1.0 mil

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	Solid Colors	Effect Colors
Volatile Organic Compounds	Max 422.7 g/l Max 3.5 lbs/gal	Max 420 g/l Max. 3.5 lbs/gal
Gloss (60º)	85 max GU	
Color	Various	

Flash-point	Alumigrip 4400 Solid (4400GXXXX)	*Refer to MSDS (see note)
	Alumigrip 4400 Effect (4400EXXXX)	*Refer to MSDS (see note)
	Alumigrip Curing Solution 4904 (CS4904)	25°F / -4°C
	Alumigrip 4956 (A4956)	44°F / 7°C
	Alumigrip 4957 (A4957)	44°F / 7°C
	Alumigrip 4965 (A4965)	93.2°F / 34°C
	Alumigrip 4967 (A4967)	93.2°F / 34°C

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 38ºC / 41 and 100ºF 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 (41 - 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.

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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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