

Alumigrip 4450 Clear Coat

Technical Data Sheet

Product Group

High Solids Acrylic Urethane Topcoat

Characteristics



Product
Information

- Alumigrip 4450 Clear Coat is a 3-component, high solids, durable, Acrylic Urethane clear coat that provides exceptional gloss and DOI. Formulated to exceed the performance and appearance requirements of the general aviation (GA) industry. The Alumigrip 4450 Clear Coat should be used with Alumigrip 4400 Base Coat as part of a base coat / clear coat system. It may also be used with Alumigrip 4200 and Alumigrip 4200 SHR.
- Designed to meet the rigorous requirements of the MIL-PRF-85285 specification.
- Passes High Pressure Water Jet simulated erosion test.
- Base coat / clear coat system helps reduce cycle time.
- Low VOC; high solids technology.
- Buffable
- Extended durability / UV resistance
- Resistant to military and commercial aircraft fluids

Components



Curing Solution
Activator

Alumigrip 4450 Clear Coat: 4450G00003
Curing solution: CS4906

A4961: High Temperature High Humidity
A4962: Cool Weather
A4968: Standard
A4969: Fast Stripe - Spot Repair

See application recommendations, page 2.

Specifications



Qualified
Product List

AkzoNobel Aerospace Coatings	Certification
Embraer	MEP-10-125 TY I
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

Alumigrip 4450 Clear Coat

Surface Conditions



Cleaning

- Surface pretreatment is an essential part of the painting process.
- Observe the recoat times of the Alumigrip 4400 Base Coat.
- If you exceed 24 hours after Alumigrip 4400 Base Coat application then wiping with isopropyl alcohol is advised. The Alumigrip 4450 Clear Coat can be applied up to seven days after Alumigrip 4400 Base Coat application without reactivation of the base coat surface.

Instruction for Use



Mixing Ratio
(volume)

1 part	Alumigrip 4450 Clear Coat 4450G00003
1 part	Curing solution CS4906
.25 parts	Activator A4961, A4962, A4968 or A4969

- Allow products to acclimatize to room temperature before use.
- Stir Alumigrip 4450 Clear Coat thoroughly until the product is uniformly homogenized before adding the curing solution.
- Add the Curing Solution and stir the catalyzed mixture thoroughly.
- Add the activator and stir the catalyzed and activated mixture again thoroughly.



Induction Time

10 minutes



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

16-20 seconds Signature Zahn-Cup 2
20-40 seconds ISO 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)

2.0 – 2.5 hours

Alumigrip 4450 Clear Coat



Dry Film
Thickness
(DFT)

50 – 62.5 microns (μm)
2.0 – 2.5 mils

Application Recommendations

A4961: High Temperature High Humidity Activator
A4962: Cool Weather Activator
A4968: Standard Activator
A4969: Fast Stripe - Spot Repair Activator



Conditions

Activator Options:

Activator:	A4961	A4962	A4968	A4969
Temperature:	27 - 35°C 80 - 95°F	18 - 27°C 65 - 80°F	24 - 32°C 75 - 90°F	10 - 27°C 50 - 80°F
Relative Humidity:	65 - 80%	25 - 85%	25 - 85%	15 - 65%



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.



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

Apply a single uniform wet coat of Alumigrip 4450 Clear Coat, flash 15 - 30 minutes followed by a cross coat until desired uniform appearance.

Note: If spraying parts using A4969, apply one single wet coat, followed by 5 minute flash and a single cross coat.



Cleaning of
Equipment

TR-19 or MEK

Alumigrip 4450 Clear Coat

Physical Properties



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

Parts and components	A4969
Full Body (Assembled)	A4961, A4968, or A4962
Repair	A4969
Stripe	A4961, A4968, A4962, or A4969

Activator
Options:

A4961: High Temperature High Humidity Activator
A4962: Cool Weather Activator
A4968: Standard Activator
A4969: Fast Stripe - Spot Repair Activator



Drying Times
(25 +/- 2°C / 77
+/- 2°F, 55 +/-
5% RH)

Activator:	A4961	A4962	A4968	A4969
Dust Free	8 hours	6 hours	4 hours	0.5 hour
Dry to Tape	24-36 hrs	10 hrs	12 hours	1-1.5 hrs
Full cure	7 days	7 days	7 days	7 days



Force Cure
Drying Times
120°F

After a 60 minute Flash @77°F (25°C) / 50% R.H then increase temperature to 120°F (49°C), 12 – 15% R.H.

Note: (Force cure is not recommended for A4969 repair activator)

Activator:	A4961	A4962	A4968
Tack Free	2 hours	2 hours	2 hours
Dust Free	2 hours	2 hours	2 hours
Dry to Tape	12 hours	4 hours	4 hours
Full cure	7 days	7 days	7 days



Theoretical
Coverage






19.29 m² per liter ready to apply at 25.4 μm dry film thickness
786 ft² per US gallon ready to apply at 1.0 mil dry film thickness



Dry Film Weight

29 g/m²/ 25.4 μm
0.0059 lbs/ft²/1.0 mil

Alumigrip 4450 Clear Coat

	<p>Volatile Organic Compounds</p> <p>Max 420 g/l Max. 3.5 lb/gal</p>
	<p>Gloss (60°)</p> <p>90+ GU</p>
	<p>Color</p> <p>Clear</p>
	<p>Flash-point</p> <p>Alumigrip 4450 Clear Coat 4450G00003 25°C/77°F Curing Solution CS4906 7°C/44°F Activator A4961 7°C/44°F Activator A4962 7°C/44°F Activator A4968 7°C/44°F Activator A4969 7°C/44°F</p>
	<p>Storage</p> <p>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.</p> <p>Shelf life 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.</p> <p>5 - 38°C (40 - 100°F)</p>

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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