Alumigrip 4250
Technical Data Sheet

Product Group

Polyurethane topcoat

Characteristics

Product Information

Alumigrip 4250 is a 3-component basecoat for accent colors and special markings in General Aviation aircraft. In order to achieve high gloss, durability and system performance it is mandatory to use Alumigrip 4250 in combination with Alumigrip 4450 Clear Coat. Alumigrip 4250 provides:

- Very fast process times
- Optimal opacity; one layer application at low layer thickness
- Excellent special effect control
- Buffable system with Alumigrip 4450 clear coats applied

Components

Base material	Alumigrip 4250
Curing Solution	Alumigrip PC-242
Activator / Thinner	Alumigrip A4950 (AC-139) standard Alumigrip A4954 (for large areas) Thinner C25/90S (Leonardo Helicopters and Piaggio Aerospace)

Specifications

Qualified Product List

AkzoNobel Aerospace Coatings	Certification

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.

Surface Conditions

Cleaning

A clean surface free of contamination and dust is required before application.

- Please refer to the applicable product TDS on how to best prepare the product prior to Alumigrip 4250 application.
- Alumigrip 4250 may be cleaned with isopropyl alcohol or Surface Prep, a water based cleaner; to remove hand prints, grease, pencil marks, and other surface contaminations prior to clear coat application.

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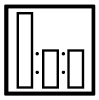
- Remove dust with clean tack rags prior to application of Alumigrip 4250.
- Alumigrip 4250 is compatible with the following primers. Alumigrip 10P8-11, Alumigrip 10P30-8, Aerodur 2111 & 2118, Aerodur 4101 & 20P20-3.
- Alumigrip 4250 is compatible with most commonly used aerospace conventional and high solid topcoats; we recommend usage with the following topcoats: Alumigrip 4200 and the Alumigrip 4400 Base Coat/ Alumigrip 4450 Clear Coat system.
- Observe the recoat times of the selected coating system components that will accompany the Alumigrip 4250. If recoat times are exceeded refer to the product TDS on how to best reactivate the surface prior to application.

Instruction for Use



Mixing Ratio (volume)

Alumigrip 4250	10 parts
Alumigrip PC-242	1 part
Alumigrip A4950 (AC-139) or Alumigrip A4954	5 parts
*Thinner C 25/90 S	

- Allow products to acclimatize to room temperature before use.
- Stir or shake Alumigrip 4250 thoroughly until all pigment is uniformly dispersed before adding the curing solution.
- Add the Alumigrip PC-242 and stir the catalyzed mixture thoroughly.
- Add the Alumigrip A4950 (AC-139) or A4954 activator and stir the catalyzed mixture again thoroughly.
- Alumigrip A4954 and Alumigrip A4950 can be blended to achieve desired wet edges for larger applications. The higher the ratio of Alumigrip A4954 to Alumigrip A4950, the longer the wet edge time and dry times will be.
- *Thinner C25/90S is a thinner with an alternative solvent blend to replace Alumigrip A4950 and Alumigrip A4954 for Leonardo Helicopters and Piaggio Aerospace.

Induction Time: None

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Initial Spraying Viscosity (25ºC/77ºF)	34 - 43 seconds ISO-Cup #4 17 - 21 seconds Zahn-Cup 2, Signature series
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 hours.

Dry Film Thickness (DFT)	Alumigrip 4250 solid colors: 10 – 15 µm per coat. 0.4 – 0.6 mil per coat.	Alumigrip 4250 special effect: 8 – 12 µm per coat. 0.3 – 0.5 mil per coat.

Application Recommendations

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

Note	Alumigrip 4250 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

Spray gun type	Nozzle orifice	Product flow	Dynamic air pressure at gun-inlet*
HVLP/ next generation	1.2 to 1.4 mm / 0.047 – 0.055 inch	N.A	Max. 3,1 bar / 45 psi**

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*) measured with open trigger
**) measured at the air-cap. General advice to meet the HVLP / next generation spray gun requirements. Please validate with your local authorities.

Number of Coats

Solid Colors

Apply a single coat, followed after 10 – 20 minutes ambient flash off time by another coat. Repeat this until opacity has been reached. Alumigrip 4250 usually covers in 2 coats.

After 30 – 45 minutes drying time of the final coat, Alumigrip 4450 Clear Coat can to be applied. Dry times will be extended if the Alumigrip A4954 is used.

Effect Colors

Apply a single coat after the last coat has been flashed off completely 30 – 45 minutes

Flash off time: 10 – 20 minutes ambient
Repeat this until opacity has been reached.

Alumigrip 4250 usually covers in 2 coats to desired opacity. The total per coat should achieve the required dry layer thickness of 10-15 µm / 0.4 – 0.6 mil per coat.

Cleaning of Equipment

TR-15, Solvent Cleaning C28/15 or Solvent Cleaning 98068 for electrostatic equipment and TR-19, Solvent Cleaning C28/15 or Solvent Cleaning 98068 for conventional spray equipment,

Note

Alumigrip A4950 (AC139) Is the primary activator for stripes and smaller accent application. Alumigrip A4954 and blends of the two activators should be used when applications exceed normal stripe sizes where longer wet edge times are desired such as: upper, lower base and/or overall base applications.

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Physical Properties

Drying Times (25ºC / 77ºF, 55% RH)

Activator	Alumigrip A4950 / Thinner C25/90S	Alumigrip A4954
Dry to tape	30 - 45 mins	5 - 7 hrs
Full cure	7 days	7 days
Re-coat minimum	when dry to tape	when dry to tape
Re-coat maximum	48 hrs. If a drying time of 48 hrs is exceeded, recondition with e.g. Scotch-Brite® type A very fine.	

When blending the mixed total of the activator must still equal 5 parts of the base.

Activator	100% A4950	50 / 50	75% A4954	100% A4954
Tack free	Less than 5 mins	30 - 45 mins	1 hr	2.5 - 3 hrs*
Wet edge	Less than 5 mins	10 - 15 mins	20 – 25 mins	30 - 40 mins*
Dry to overcoat	35 - 45 mins	1 hr - 1.5 hrs	2 hrs	5 - 5.5 hrs*

*Dry times may vary based on thickness of coating.

Note

Taping directly to Alumigrip 4250 should be avoided as there is the potential for tape mark ghosting after clearcoat application.

Alumigrip 4250 is designed for accent colors on aircraft. In certain situations, when using the appropriate blend, Alumigrip 4250 can be used for larger applications on corporate aircraft. However, the 4400-basecoat system is designed for overall jet aircraft.

Force Cure Times (120ºF)

After a 60 minutes flash @77F(25°C) / 50% RH then increase to 120F° (49°C) for 2 - 4 hours. Mixes with 100% A4950 or Thinner C25/90S. Do not require baking.

If a bake cycle is used, the exposed basecoat should be clear coated no longer than 24 hours after the initial bake.

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Theoretical Coverage	50 m^2 per liter base material at 10 µm dry film thickness. 2005 ft^2 per US gallon base material at 0.4 mil dry film thickness.
Dry Film Weight	Depending on color: 1.4 g/m^2/µm 0.0073 lbs./ft^2/mil
Volatile Organic Compounds	Max 746 g/l
Gloss (60º)	Not applicable.
Color	As required.

Flash-point

Alumigrip 4250	12ºC / 54ºF
PC-242	35ºC / 95ºF
A4950 (AC-139)	36ºC / 96ºF
A4954 (when used)	36ºC / 96ºF
Thinner C25/90S	-4°C (25°F)

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 container label for specific storage life information.

Shelf life
5 - 38°C
(41 - 100°F)

12 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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