

Alumigrip 4250

Technical Data Sheet

Product Group

Polyurethane Top Coat

Characteristics



Product Information

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

Alumigrip 4250 provides:

- Wide range of solid and special effect colors
- Fast process times
- Optimal opacity; one layer application at a low layer thickness
- Excellent special effect control
- Buffable system with Alumigrip 4450 Clear Coat applied

Components



| | |
|-----------------|----------------------------------|
| Base | Alumigrip 4250 |
| Curing Solution | Curing Solution Alumigrip PC-242 |
| Thinner | Alumigrip TR-4972 (stripes) |
| Thinner | Alumigrip TR-4970 (standard) |
| Thinner | Thinner C 25/90 S |

Specifications



Qualified Product List

| | |
|-----------|-----------------------|
| AkzoNobel | ANAC Spec |
| Embraer | MEP 10-080 Revision K |
| Pilatus | VV0605-33 |

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



Surface Preparation/
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 is compatible with the most commonly used primers.

Alumigrip 4250 may be cleaned with a mild cleaning solvent such as isopropyl alcohol or AkzoNobel Ultra Prep Surface Cleaner, to remove handprints, grease, pencil marks, and other surface contaminations prior to clear coat application.

Remove dust with clean tack rags prior to the application of Alumigrip 4250.

Alumigrip 4250 is compatible with the 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.

Alumigrip 4250

Instruction for Use



Spray Application (Mix Ratio)

Volume

| | |
|----------------------------------|----------|
| Alumigrip 4250 | 10 parts |
| Curing Solution Alumigrip PC-242 | 1 part |
| Thinner* | 5 parts |

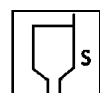
* Thinner options: Alumigrip TR-4972 (stripes), Alumigrip TR-4970 (standard), Thinner C 25/90 S

- 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 TR-4970 or TR-4972 thinner and stir the catalyzed mixture again thoroughly.
- Thinner C25/90S is a thinner with an alternative solvent blend for Leonardo Helicopters and Piaggio Aerospace.



Induction Time

Not Applicable.



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

34 – 49 seconds ISO Cup #4
17 – 23 seconds Zahn Cup #2 Signature series



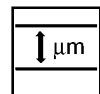
Note

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 (25°C/77°F)

2 hours



Dry Film Thickness (DFT)

| | |
|------------------------------|--------------------------------|
| Alumigrip 4250 solid colors: | Alumigrip 4250 special effect: |
| 10 – 15 µm per coat | 8 – 12 µm per coat |
| 0.4 – 0.6 mil 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.

Alumigrip 4250



Equipment Recommendation

| Spray gun type | Product supply | Fluid Pressure | Nozzle orifice | Product flow | Dynamic air pressure at gun-inlet * |
|------------------------|----------------|----------------|------------------------------------|--------------|-------------------------------------|
| HVLP / Next Generation | N/A | N/A | 1.2 to 1.4 mm / 0.047 – 0.055 inch | N/A | 2 – 2.5 bar / 29 – 36 psi** |

*Measured with an open trigger

**General advice to meet the HVLP / next-generation spray gun requirements. Please validate with your local authorities.



Number of Coats

Apply a single coat, followed after 10 – 20 minutes of ambient flash-off time by another coat. Repeat this until opacity has been reached. Alumigrip 4250 usually covers in 1 or 2 coats.

After 30 – 45 minutes of the final coat drying time, Alumigrip 4450 Clear Coat can be applied. Dry times may be extended if the Alumigrip TR-4970 is used.



Note

Alumigrip TR-4972 is the primary thinner for stripes and smaller accent application. Alumigrip TR-4970 thinner 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.



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

The quality of the application of all coatings will be influenced by the spray equipment chosen and the temperature, humidity, and airflow 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.

Physical Properties



Drying Times

| | 25°C/77°F, 55% RH | 25°C/77°F, 55% RH | 25°C/77°F, 55% RH |
|-----------------|-------------------------------|-----------------------------|-------------------------------|
| Dry to Touch | Alumigrip TR-4972: 5-10 mins | Thinner C25/90S: 5-10 mins | Alumigrip TR-4970: 30-45 mins |
| Dry to Tape | Alumigrip TR-4972: 1 hr | Thinner C25/90S: 1 hr | Alumigrip TR-4970: 2-3 hrs |
| Full Cure | Alumigrip TR-4972: 7 days | Thinner C25/90S: 7 days | Alumigrip TR-4970: 7 days |
| Dry to Overcoat | Alumigrip TR-4972: 30-45 mins | Thinner C25/90S: 30-45 mins | Alumigrip TR-4970: 1-1.5 hrs |



Note

Recoat maximum is 48 hours. If a drying time of 48 hours is exceeded, recondition with grade P320 sanding paper or an aluminum oxide nonwoven abrasive pad.

Force Cure Times (120°F / 49°C):

After a 20-minute flash at 77°F (25°C) / 50% RH then increase to 120°F (49°C) for 1 - 2 hours. Mixes with Alumigrip TR-4972 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.

Taping directly to Alumigrip 4250 should be avoided as there is the potential for tape mark ghosting after the 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 Alumigrip 4400 Base Coat system is designed for overall jet aircraft.



Theoretical Coverage

50 m² per liter base material at 10 µm dry film thickness.
2005 ft² per US gallon base material at 0.4 mil dry film thickness.

Alumigrip 4250

| | | | | | | | | | | | | |
|--|----------------------------------|--|----------------|-------------|----------------------------------|-------------|-----------------------------|-------------|------------------------------|--------------|-------------------|-------------|
|  | 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 | Not applicable | | | | | | | | | | |
|  | Color | As required. | | | | | | | | | | |
|  | Flash Point | <table border="0"> <tr> <td>Alumigrip 4250</td> <td>12°C / 54°F</td> </tr> <tr> <td>Curing Solution Alumigrip PC-242</td> <td>35°C / 95°F</td> </tr> <tr> <td>Alumigrip TR-4972 (stripes)</td> <td>16°C / 60°F</td> </tr> <tr> <td>Alumigrip TR-4970 (standard)</td> <td>56°C / 133°F</td> </tr> <tr> <td>Thinner C 25/90 S</td> <td>-4°C / 25°F</td> </tr> </table> | Alumigrip 4250 | 12°C / 54°F | Curing Solution Alumigrip PC-242 | 35°C / 95°F | Alumigrip TR-4972 (stripes) | 16°C / 60°F | Alumigrip TR-4970 (standard) | 56°C / 133°F | Thinner C 25/90 S | -4°C / 25°F |
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| Thinner C 25/90 S | -4°C / 25°F | | | | | | | | | | | |
|  | Storage | Store the product dry and at a temperature between 5 and 38°C / 41 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 (41 - 100°F) | <table border="0"> <tr> <td>Alumigrip 4250</td> <td>12 months</td> </tr> <tr> <td>Curing Solution Alumigrip PC-242</td> <td>12 months</td> </tr> <tr> <td>Alumigrip TR-4972 (stripes)</td> <td>12 months</td> </tr> <tr> <td>Alumigrip TR-4970 (standard)</td> <td>12 months</td> </tr> <tr> <td>Thinner C 25/90 S</td> <td>12 months</td> </tr> </table> | Alumigrip 4250 | 12 months | Curing Solution Alumigrip PC-242 | 12 months | Alumigrip TR-4972 (stripes) | 12 months | Alumigrip TR-4970 (standard) | 12 months | Thinner C 25/90 S | 12 months |
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| Thinner C 25/90 S | 12 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.

Revision date: April 2025 (supersedes January 2025) - FOR PROFESSIONAL USE ONLY

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