

# Alumigrip 4101

## Technical Data Sheet

### Product Group

Epoxy Non-chromate Corrosion Inhibiting Primer

### Characteristics



Product  
Information

Alumigrip 4101 is a 2 component urethane compatible, corrosion inhibiting primer formulated for use with AkzoNobel Aerospace Coatings' Commercial and General Aviation topcoats, Aviox, Eclipse and Alumigrip 4200.

This product uses non-chromate pigments to provide corrosion protection. This product contains VOC exempt solvents allowed by USA legislation

### Components



Base material	Alumigrip 4101P001
Curing Solution	Alumigrip 4901 (CS4901)

### Specifications



Qualified  
Product List

Airbus Canada	A2MS 565-018 A2MS 565-019
AkzoNobel Aerospace Coatings	Certification
Bombardier	BAMS 565-018
Hawker Beechcraft	BS178928

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](http://aerospace.akzonobel.com/products).

### Surface Conditions



Cleaning

Surface pretreatment is an essential part of the painting process.

Alumigrip 4101P001 is intended for use over clad aluminum pretreated substrates using chromate conversion coating per MIL-C-5541 or as a reactivation primer over abraded process primers.

# Alumigrip 4101 Epoxy Primer

## Instruction for Use



Mixing Ratio  
(volume)

Alumigrip 4101P001	100 parts (wt.)
Alumigrip 4901 (CS4901)	76 parts (wt.)

Mix 1:1 by volume. For small mixes, mix by weight as listed above.



Induction Time

None.



Note

Stir or Shake Alumigrip 4101P001 until all pigment is uniformly dispersed before adding curing solution

Stir the catalyzed mixture thoroughly.



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

19 – 30 seconds Zahn-Cup #2, EZ  
10 – 21 seconds Ford # 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)

4 hours.



Dry Film  
Thickness  
(DFT)

15-23 μm  
0.6 -0.9 mil

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## Epoxy Primer

### Application Recommendations



#### Conditions

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



#### Note

Alumigrip 4101 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

Air: Atomizing air pressure, 45 to 65 psi. Pot pressure (if applicable) 5 to 20 psi.  
Tip size: 1.2 to 1.4 mm.

HVLP: Input air, up to 45 psi. Fluid/pot pressure: 5 to 20 psi Tip size: 1.2 to 1.4 mm.

Air assist airless electrostatic spray equipment (Pro 4000): Fluid pressure: 850 to 1,000 psi (pump ratio 15:1), atomizing air pressure, 55 to 65 psi. Tip size: 0.013 inches (0.33mm) or smaller, preferably 0.011 inch (0.28mm).

High pressure air assist airless electrostatic spray equipment (Graco Pro 4500): Fluid pressure, 1800 to 2500 psi (pump ratio 30:1), atomizing air pressure, 55 to 65 psi.

Tip size: 0.009 to 0.011 inch (0.23 – 0.28 mm).



#### Number of Coats

Spray one or two coats to a dry film thickness of .6 –.9 mils.



#### Cleaning of Equipment

TL-29 and TR-49 are the preferred cleaning solvents.

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### 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 to be used in optimizing the performance and appearance of the coating.

## Physical Properties



Drying Times  
(25°C / 77°F,  
55% RH)

Dry to tape	2 hours
Full cure	7 days
Recoat minimum	2 hours
Recoat maximum	72 hours
Accelerated cure Option 1	Accelerated cure flashing 20 minutes at RT followed by 6 minutes at 180-220°F will result in a dry-to-handle, dry-to topcoat, or dry-to-stack condition.
Accelerated cure Option 2	Accelerated cure flashing 20 minutes at RT followed by 30 minutes at 120°F will result in a dry-to-handle, dry-to topcoat, or dry-to-stack condition.
Ambient cure	Ambient cure Set to touch in 30 minutes (77°F/25°C @ 50% RH).



Theoretical  
Coverage

13.2788 m<sup>2</sup> per liter ready to apply at 25 µm dry film thickness.  
541 ft<sup>2</sup> per US gallon ready to apply at 1 mil dry film thickness.

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Dry Film Weight      43.3852 g/m<sup>2</sup>/μm  
0.008886 lbs/ft<sup>2</sup>/mil



Volatile Organic      Max 340 g/l  
Compounds      Max 2.82 lbs/gal



Gloss (60°)      10 GU Maximum



Color      Green



Flash-point      Alumigrip 4101P001      27°C / 80°F  
Alumigrip CS4901      -17°C / 1°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 and shelf life may vary per OEM specification requirements. Refer to container label for specific storage life information.

Shelf life      12 months per AkzoNobel Aerospace Coatings commercial specification. Shelf  
5 - 38°C      life may vary due to OEM specification requirements. Refer to container label for  
(41 - 100°F)      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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**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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