AkzoNobel Aerospace Coatings

113FG401Temperature Indicating Coating



Product Group

Polyurethane Coating

Characteristics



Product Information

 A chemically cured, low VOC coating designed to provide premium gloss and provide superior chemical and stain resistance, as well as flexibility.
This technology is specifically engineered to produce a noticeable color change to indicate when the substrate/ part has been subjected to extreme temperature conditions (450°F/ 232°C)

Components

Base Curing Solution, Thinner/Reducer 113FG401 PC-233

TR-109 or TR-111 thinner

Specifications



Qualified Product List

Goodrich LGQP 6002

The complete AkzoNobel Aerospace Coatings qualified product list (QPL) can be found at: www.akzonobel.com/aerospace

Surface Conditions



Cleaning

Surface pretreatment is an essential part of the painting process. This product should be applied over a specified primer, such as AkzoNobel Aerospace Coatings 10P20-44 or 10P20-44M.

Instruction for Use



Mixing Ratio (volume)

2 parts 113FG401 1 part PC-233

1 part TR-109 or TR-111

- Stir or Shake until all pigment is uniformly dispersed before adding curing solution.
- Stir the catalyzed mixture thoroughly.



Induction Time

15-30 minutes

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Initial Spraying Viscosity (25°C/77°F) 30 - 50 seconds ISO-Cup #4

17 – 23 seconds signature Zahn-Cup 2

21 – 31 seconds EZ 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 (25°C/77°F)

3 hours.



Dry Film Thickness (DFT)

50-75 micron (μ m)

2-3 mils

Application Recommendations



Conditions

Temperature: 15 – 35°C 59 – 95°F

Relative Humidity: 35 – 75%



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 (.047-.055 inch) nozzle orifice

Air pressure 35 – 55 PSI

HVLP 1.2 - 1.4 mm (.047 - .055 inch) nozzle orifice

Air pressure 10 PSI at the air cap

Air Assist Airless Electrostatic

23 – .34 mm (.009 – .013 inch) nozzle orifice

Atomizing air pressure 55-65 PSI

Air spray Electrostatic

1.2 - 1.5 mm (.047 - .059 inch) nozzle orifice

Air pressure 35 – 45 PSI

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Number of coats

Apply 113FG401 coating in two to three applications to a recommended dry film thickness of 2-3 mils (50-75 microns). More, if necessary to achieve acceptable hide.

Allow coats to dry in accordance with the table below before recoating: Recommended recoat time at 77° \pm 2°F (25 \pm 1°C) 50 \pm 5% RH)*

Thinner/Reducer	Recommended Re-coat Time
TR-109	45 – 120 minutes

TR-111 30 – 60 minutes



Cleaning of Equipment Solvent Cleaning C28/15 or TR-15 (electrostatic equipment) Solvent Cleaning C28/15 or TR-19 for other spray equipment.

Physical Properties



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

TR-109 TR-111 Dry to dust 3.5 hours 3.25 hours Dry to tape 10-12 hours 6-7 hours Full cure 18-24 hours 24 hours Recoatable minimum 30-45 minutes 45-60 minutes 48 hours Recoatable maximum 36 hours



Theoretical Coverage

11 m² per liter ready to apply at 50 μm dry film thickness 450 ft² per US gallon ready to apply at 2 mil dry film thickness



Dry Film Weight

1.5 g/m²/micron 0.008 lbs/ft²/mil



Volatile Organic Compounds Max 420 g/l Max 3.5 lb/gal



Gloss (60°)

80 minimum



Color

Yellow

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Flash-point

Refer to the Material Safety Data Sheet (MSDS) for each individual component for specific flashpoint information.



Storage

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.

Shelf life 5 - 38°C (40 - 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.

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 MSDSs 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 fuffill 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 or 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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