



Product Group

Epoxy primer

Characteristics



Product Information

- This low VOC two-component epoxy primer exhibits excellent corrosion resistance with good flexibility and chemical resistance.

Components



Curing Solution, Thinner/Reducer or Activator

Curing Solution: EC-213
Optional Thinners: TR-114* or TR-49**

* TR-114 is a VOC compliant thinner and may be used where VOC legislation permits.

** TR-49 is a MIL-T-81772B, TY II thinner and may be used where VOC compliance is not required. The use of TR-49 will raise the VOC.

Specifications



Qualified Product List

EADS (CASA)	Z-12.140/MIL-P-23377 Ty I
Lockheed Martin	G37.5472
Rolls Royce (Omat)	07-138
US Military	MIL-PRF-23377 Type I, CI C2

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. Follow the specification requirements for cleaning and pretreatment application.

Instruction for Use



Mixing Ratio (volume)

3 parts	Base 10P20-13
1 part	Cure Solution EC-213
0-1 part	Optional Thinner: TR-114 or TR-49

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



Induction Time

30 minutes



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

Mixed and unthinned:

21 – 30 seconds 4 mm ISO Cup
12 – 16 seconds #4 Ford Cup

The uses of Ford Cups for viscosity are requirements of the referenced specifications, and the ISO Cup measurement is provided only as a reference for field application. They are not provided as quality control values. Actual values will vary when tested outside of standard conditions (25°C/77°F)

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.



Note



Pot Life
(25°C/77°F)

4 hours.



Dry Film
Thickness
(DFT)

15 – 23 micron (µm)
0.6 – 0.9 mils

Application Recommendations

Standard suction, pressure pot, air assist airless, HVLP or electrostatic spray.



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	1.4 mm (.055 inch) nozzle orifice
HVLP	1.4 mm (.055 inch) nozzle orifice
Air Electrostatic	1.2 mm (.047 inch) nozzle orifice
Airless Electrostatic	.28 – .33 mm (.011 – .013 inch) nozzle orifice at 60° angle



Number of coats

Spray an even closed wet coat.



Cleaning of
Equipment

Use C28/15, MEK or TR-49 (MIL-T-81772 Type II)

Physical Properties



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

Dry to dust	1.5 – 2 hours
Dry to tape	4 – 5 hours
Full cure	7 days @ 77°F (25°C), 50% RH
Dry to topcoat	5 hours @ 77°F(25°C) 50% RH
Recoat minimum	5 hours
Recoat maximum	48 hours

Alternate Force
Cure

There are two force cure conditions possible.

1. To determine sufficient cure to be able to handle and package components
 - a. Induct mixed primer for 30 minutes
 - b. Apply primer
 - c. Air dry for one hour at 75°F (24°C)
 - d. Force cure for 2-3 hours at 150°F(65°C)
 - e. Allow parts to return to cool completely before packing or handling.

2. To determine sufficient cure to test the product for full cure properties
 - a. Induct mixed primer for 30 minutes
 - b. Apply primer
 - c. Air dry for one hour at 75°F (24°C)
 - d. Force cure for 24 hours at 150°F(65°C)
 - e. Allow parts to return to cool completely before testing.

The cure required for handling and packing will vary due to the efficiency of the oven being used (evacuating the solvent heavy air) and the amount of air movement in the oven. The customer should run tests to verify the required cure schedule.



Theoretical Coverage

Unreduced:

23.6 m² per liter ready to apply at 25 µm dry film thickness
964 ft² per US gallon ready to apply at 1 mil dry film thickness

Reduced with either TR-114 or TR-49 thinner:

18.9 m² per liter ready to apply at 25.4 µm dry film thickness
771 ft² per US gallon ready to apply at 1 mil dry film thickness



Dry Film Weight

47.28 g/m²/25.4 microns
.00968 lbs/ft²/1 mil



Volatile Organic Compounds

340 g/l, mix ratio 3:1 with EC-213

340 g/l (per USA legislation), mix ratio 3:1:0.5-1 with EC-213/TR-114.

Where legislation permits > 340 g/l, mix ratio 3:1:0.5-1 with EC-213/TR-49

Maximum 438 g/l (3.66 lb/gal)



Gloss (60°)

60 – 95 GU



Color

Yellow



Flash-point

10P20-13	15°C / 60°F
EC-213	7°C / 45°F
TR-114	-17°C / 1°F
TR-49	-5°C / 23°F



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)

12 months per AkzoNobel Aerospace Coatings commercial specification for 10P20-13 and EC-213. 24 months for TR-49 and TR-114. 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 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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