

10P20-13

High Solids Primer

Technical Data Sheet

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

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

For most recent up-date or missing specifications please check the qualified product list (QPL) on 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

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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)



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 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.

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	Equipment	Air HVLP Air Electrostatic Airless Electrostatic	1.4 mm (.055 inch) nozzle orifice 1.4 mm (.055 inch) nozzle orifice 1.2 mm (.047 inch) nozzle orifice .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 Dry to tape Full cure	1.5 – 2 hours 4 – 5 hours 7 days @ 77°F (25°C), 50% RH
Dry to topcoat		5 hours @ 77°F(25°C) 50% RH	
Recoatable minimum		5 hours	
Recoatable maximum		48 hours	
	Theoretical Coverage	Unreduced: 23.6 m ² per liter ready to apply at 25 µm dry film thickness 964 ft ² per US gallon ready to apply at 1 mil dry film thickness	
Reduced with either TR-114 or TR-49 thinner:		18.9 m ² per liter ready to apply at 25.4 µm dry film thickness 771 ft ² per US gallon ready to apply at 1 mil dry film thickness	
	Dry Film Weight	47.28 g/m ² /25.4 microns .00968 lbs/ft ² /1 mil	

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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.

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.

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.



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



Gloss (60°)

Maximum 438 g/l (3.66 lb/gal)

60 – 95 GU



Color

Yellow

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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 MSDS's are available on request.

Issue date: January 2015 (supersedes November 2011) - 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.

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