10P20-14
High Solids Low IR Primer
Technical Data Sheet

Product Group

Epoxy Primer

Characteristics

Product Information

- A high solids primer for aircraft exteriors meeting the low infrared reflectance requirements of the referenced specification.
- This product is subject to International Traffic in Arms Regulations (ITAR).

Components

Curing Solution
Thinner

Curing Solution EC-214
Optional thinners TR-114 or TR-49

Specifications

Qualified Product List

US Military	MIL-PRF-23377, Ty II, Cl C2
EADS (CASA)	Z-12.140/MIL-P-23377 Ty II

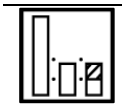
For most recent up-date or missing specifications please check the qualified product list (QPL) on **www.akzonobel.com/aerospace**

Surface Conditions

Cleaning

- Surface pretreatment is an essential part of the painting process.
- Follow specification requirements for cleaning and pretreatment

Instruction for Use



Mixing Ratio (volume)

3 parts	Base 10P20-14
1 part	Curing Solution EC-214
0.5-1 part as needed	Thinner 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. Use of

AkzoNobel Aerospace Coatings
1 East Water Street, Waukegan, IL 60085, USA - Phone (847) 623 4200, Fax (847) 625 3200
Rijksstraatweg 31, 2171 AJ Sassenheim, The Netherlands - Phone (31) 71 308 2905, Fax (31) 71 308 2056
Internet: www.akzonobel.com/aerospace

10P20-14
High Solids Low IR Primer

- **TR-49 will raise the VOC.
- Stir or Shake till all pigment is uniformly dispersed before adding curing solution.
- Stir the catalyzed mixture thoroughly

Induction Time	30 minutes
Initial Spraying Viscosity (25ºC/77ºF)	14-18 seconds ISO Cup 4 12-16 seconds Ford Cup 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 (25ºC/77ºF)	4 hours.
Dry Film Thickness (DFT)	15 – 23 micron (µm) 0.6 – 0.9 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	

AkzoNobel Aerospace Coatings
1 East Water Street, Waukegan, IL 60085, USA - Phone (847) 623 4200, Fax (847) 625 3200
Rijksstraatweg 31, 2171 AJ Sassenheim, The Netherlands - Phone (31) 71 308 2905, Fax (31) 71 308 2056
Internet: www.akzonobel.com/aerospace

10P20-14
High Solids Low IR Primer

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

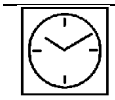
Number of Coats

Spray an even wet closed coat.

Cleaning of Equipment

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

Physical Properties



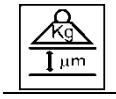
Drying Times (25 +/- 2ºC / 77 +/- 2ºF, 55 +/- 5% RH)

Dry to dust	1.5-2 hours
Dry to tape	4-5 hours
Full cure	7 days at 77°F(25°C) 50% RH
Dry to topcoat	5 hours at 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 micron 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 micron 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 at 25 micron
.00968 lbs/ft^2 at 1 mil

AkzoNobel Aerospace Coatings
1 East Water Street, Waukegan, IL 60085, USA - Phone (847) 623 4200, Fax (847) 625 3200
Rijksstraatweg 31, 2171 AJ Sassenheim, The Netherlands - Phone (31) 71 308 2905, Fax (31) 71 308 2056
Internet: www.akzonobel.com/aerospace

10P20-14
High Solids Low IR Primer

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.
VOC 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-214/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 lbs/gal)
GU Gloss (60º)	60 – 95 GU
Color	Dark Green
Flash-point	10P20-14 15ºC / 60ºF EC-214 7ºC / 45ºF TR-114 -17°C / 1°F TR-49 -5°C / 23°F

AkzoNobel Aerospace Coatings
1 East Water Street, Waukegan, IL 60085, USA - Phone (847) 623 4200, Fax (847) 625 3200
Rijksstraatweg 31, 2171 AJ Sassenheim, The Netherlands - Phone (31) 71 308 2905, Fax (31) 71 308 2056
Internet: www.akzonobel.com/aerospace

10P20-14
High Solids Low IR Primer

Storage

Store the product dry and at a temperature between 5 and 38ºC / 40 and 100ºF 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. 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 July 2014) - FOR PROFESSIONAL USE ONLY

AkzoNobel Aerospace Coatings
1 East Water Street, Waukegan, IL 60085, USA - Phone (847) 623 4200, Fax (847) 625 3200
Rijksstraatweg 31, 2171 AJ Sassenheim, The Netherlands - Phone (31) 71 308 2905, Fax (31) 71 308 2056
Internet: www.akzonobel.com/aerospace