

10P20-44

High Solids Epoxy Primer

Technical Data Sheet

Product Group

High solids epoxy primer

Characteristics



Product
Information

A high solids urethane compatible, Skydrol[®] resistant primer for the exterior of aircraft. It provides excellent corrosion resistance and excellent adhesion for urethane topcoats.

Components



Curing Solution
Thinner

Curing solution: EC-265, EC-273
Thinner: TR-114, TR-102

Specifications



Qualified
Product List

Air France	SMI 70 010-2
Boeing	BMS 10-79 Type II & III, CI B, Gr D
Bombardier	BAMS 565-008, Type I & II, CI A, Gr B
Bombardier/deHavilland	DHMS C4.18 Type 3, CI B, Gr B
EADS (CASA)	Z-12.138
Embraer	MEP 10-068, CI A & B
FedEx	99-015
MHI	MM1275, Type 1
Saab	TEK00-0161MT

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.

- Refer to Eclipse Process Standard for detailed instructions.
- Surface pretreatment is an essential part of the painting process.
- Follow the specification requirements for cleaning and pretreatment application.

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Instruction for Use



Mixing Ratio
(volume)

3 parts
1 part
1 part

Base 10P20-44
Curing Solution EC-265 or EC-273
Thinner TR-114 or TR-102
(use of thinner optional but recommended)

EC-265 Qualified to meet BMS 10-79, CMS565-08 and DMS 2104.

EC-273 Formulated for application by maintenance market and select OEMs. Qualified to meet DHMS C4.18.

TR-114 VOC- and HAPS-free reducer

TR-102 Non-exempt thinner

TR-114 is a VOC and HAPS-free thinner approved to BMS 10-79, BAMS 565-008, DMS 2104 and DHMS C4.18 at a mix ratio of 3:1:1 (10P20-44:EC-265:TR-114). The system pot life is extended up to 4 hours when the thinner is used in the 3:1:1 mix ratio.

TR-102 non-exempt thinner can be used if VOC compliance is not needed.

- Stir or Shake base component until all pigment is uniformly dispersed before adding curing solution.
- Add curing solution and thinner/reducer and stir the catalyzed mixture thoroughly.



Induction Time

None



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

23 – 30 seconds ISO Cup # 4	3:1 mix ratio
16 – 23 seconds Signature Zahn Cup # 2	3:1 mix ratio
15 – 21 seconds ISO Cup # 4	3:1:1 mix ratio
13 – 19 seconds Signature Zahn Cup # 2	3:1:1 mix ratio

The uses of Signature Zahn 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.

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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)

1 hour.	No thinner
4 hours.	With 1 part TR-114 or TR-102 (recommended)



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 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

Conventional air	1.4 mm (.055 inch) nozzle orifice
Air assist airless electrostatic	.28 - .33 mm (.011 - .013 inch) nozzle orifice
Air electrostatic	1.2 mm (.047 inch) nozzle orifice
HVLP	1.4 mm (.055 inch) nozzle orifice



Number of
Coats

Single uniform wet coat

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Cleaning of
Equipment

MEK

Physical Properties



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

Dry to handle	8 – 12 hrs
Dry to topcoat	2.25 hrs
Dry to tape	2.25 hrs
Full cure	7 days
Accelerated Cure to topcoat	Flash off 15 – 30 minutes @ ambient temperature and 50% RH, then ½ hr @ 60°C (140°F).
Full cure	Flash off 15 – 30 minutes @ ambient temperature and 50% RH, then 24 hrs @ 60°C (140°F)



Note

Maximum overcoat window without reactivation is 48 hours



Theoretical
Coverage

- Unreduced:
22.2 m² per liter ready to apply at 25.4 µm dry film thickness
905 ft² per US gallon ready to apply at 1 mil dry film thickness

- Activated with EC-265 and thinned with either Reducer:
17.8 m² per liter ready to apply at 25.4 µm dry film thickness
724 ft² per US gallon ready to apply at 1 mil dry film thickness

- Activated with EC-273 and thinned with either Reducer:
17.4 m² per liter ready to apply at 25.4 µm dry film thickness
709 ft² per US gallon ready to apply at 1 mil dry film thickness



Dry Film Weight

- Activated with EC-265: 42.9 g/m ² at 25.4 microns .0088 lbs/ft ² at 1 mil	- Activated with EC-273: 43.4 g/m ² at 25.4 microns .0089 lbs/ft ² at 1 mil
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Volatile Organic
Compounds

- Activated with EC-265: Max. 350 g/l (2.9 lb/gal) with TR-114 or no thinner Max. 458 g/l (3.8 lb/gal) with TR-102	- Activated with EC-273: Max. 380 g/l (3.2 lb/gal) with TR-114 or no thinner Max. 470 g/l (3.9 lb/gal) with TR-102
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Gloss (60°)

10 – 60 GU



Color

Yellow



Flash-point

10P20-44	7°C / 45°F
EC-265	7°C / 45°F
EC-273	7°C / 45°F
TR-114	-17°C / 1°F
TR-102	7°C / 45°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. 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.

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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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