

# 10P20-44MNF

## Technical Data Sheet

### Product Group

Epoxy primer

### Characteristics



Product  
Information

10P20-44MNF is a VOC compliant (acc. to US legislation) High Solids corrosion inhibiting 3 component amine cured epoxy primer. This OEM qualified polyurethane compatible primer is designed for application to aircraft exterior surfaces. When used in combination with the OEM qualified topcoat or basecoat – clearcoat system the product is designed to provide the most optimal chemical- and corrosion-resistance and durability.

### Components



Base material	10P20-44MNF
Curing Solution	EC-291B
Thinner	Thinner TR-114 (VOC exempt solvent per US guidelines) or Thinner TR-102

### Specifications



Qualified  
Product List

Boeing	BMS 10-72 Type VIII, IX and X, Comp C
Ilyushin	ТИ 756.03.583

Product specifications are constantly changing, to ensure the most accurate information regarding specifications, please check our online qualified product list (QPL) at [aerospace.akzonobel.com/products](http://aerospace.akzonobel.com/products)

# 10P20-44MNF Epoxy Primer

## Surface Conditions



### Cleaning

- 10P20-44MNF can be applied directly over reactivated aged primer or topcoat.
- When applied over chemically stripped and/or uncoated metallic substrate, the surface shall be pretreated according to the Boeing AMM or as per BAC 5075 process using a BMS 10-128 approved pre-treatment.
- Clean aged primer or epoxy/polyurethane finishes and sand/abrade to a uniform matt finish using grade P320 sandpaper or an aluminum oxide non-woven abrasive pad.
- Clean and degrease the surface with an approved cleaning solvent prior to application of the pre-treatment or primer.
- Remove dust and debris with a tack rag or equivalent.

## Instruction for Use



### Mixing Ratio (volume)

Base 10P20-44MNF	2 parts
Curing Solution EC-291B	1 part
Thinner TR-114* or TR-102**	1 part

- Acclimatize all components to ambient conditions prior to further processing
- Stir or shake base until all pigment is uniformly dispersed before adding curing solution and thinner.
- Add Curing Solution EC-291B and manually stir or agitate the catalyzed mixture for 1 minute to a homogeneous mixture.
- Add Thinner TR-114 or TR-102 and stir manual for an additional minute.  
\*TR-114 is a VOC exempt and HAPS free thinner, per US guidelines  
\*\*TR-102 is a non-exempt thinner that raises total VOC



### Induction Time

15 minutes



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

13 – 16 seconds Gardener Signature Zahn-Cup 2  
15 – 25 seconds ISO-Cup 4

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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)

4 hours



Dry Film  
Thickness  
(DFT)

15 – 23  $\mu\text{m}$   
0.6 – 0.9 mil

### Application Recommendations



Conditions

Temperature: 15 – 35°C  
59 – 95°F  
Relative Humidity: 35 – 75%



Note

10P20-44MNF may be applied in conditions outside the limits shown above. Care must be exercised to ensure a satisfactory result. Please contact your local AkzoNobel Aerospace Coatings representative to determine the appropriate application techniques when environmental conditions fall outside of the recommended range.



Equipment

Spray gun type	Product supply	Nozzle orifice	Product flow	Dynamic air pressure at gun-inlet*
Conventional	Gravity / siphon feed	1.2-1.4mm	N/A	3-5 bar / 43-73 psi
	Pressure pot / pump	1.2-1.4mm	265-355 mL/min	3-5 bar / 43-73 psi

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HVLP / next generation	Gravity / siphon feed	1.2-1.4mm	N/A	0.7 bar / 10 psi**
	Pressure pot / pump	1.2-1.5mm	240-350 mL/min	0.7 bar / 10 psi**
Air atomizing - electrostatic	Pressure pot / pump	1.2mm	230-240 mL/min	4-5 bar / 58-73 psi
		1.5mm	300-360 mL/min	4-5 bar / 58-73 psi
Pressure atomizing (electrostatic)	Pump	0.09-0.13 inch / 60°	260-300 mL/min or 75-90 bar / 1 - 1.3Kpsi	4-4.5 bar / 58-65 psi

\*) measured with open trigger

\*\*) measured at the air-cap. General advice to meet the HVLP / next generation spray gun requirements. Please validate with your local authorities



Number of Coats

Spray a single uniform wet coat to a dry film thickness of 15 – 23 µm / 0.6 – 0.9 mil.



Cleaning of Equipment

Use TR-36, Solvent Cleaning C28/15, Solvent Cleaning 98068 or MEK.



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 to identify the best equipment settings to be used in optimizing the performance and appearance of the coating.

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## Physical Properties



Drying Times  
(25°C / 77°F,  
55% RH)

Dry to topcoat	3 hrs
Dry to tape	3 – 4 hrs
Dry to sand	4 hrs
Maximum recoat window at standard conditions with no reactivation required	48 hrs

If the overcoat time of 48 hours is exceeded, recondition the aged primer with aluminum oxide non-woven abrasive, type very fine or P320 grade sanding paper, clean and tack surface and reapply 10P20-44MNF.



Theoretical Coverage

28.0 m<sup>2</sup> per liter ready to apply at 15 µm dry film thickness  
1121 ft<sup>2</sup> per US gallon ready to apply at 0.6 mil dry film thickness



Dry Film Weight

1.69 g/m<sup>2</sup>/µm  
0.0088 lbs/ft<sup>2</sup>/mil



Volatile Organic Compounds

Diluted with Thinner TR-114:  
590 g/L / 4.92 lbs/gal  
350 g/L / 2.92 lbs/gal - excluding exempt solvents acc. to US EPA

Diluted with Thinner TR-102:  
512 g/L / 4.27 lbs/gal  
474 g/L / 3.96 lbs/gal - excluding exempt solvents acc. to US EPA



Gloss (60°)

10 – 60 GU

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Color Yellow



Flash-point	10P20-44MNF	7°C / 45°F
	Curing Solution EC-291B	7°C / 45°F
	Thinner TR-114	-17°C / 1°F
	Thinner 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 and shelf life may vary per OEM specification requirements. Refer to container label for specific storage life information.

Shelf life	10P20-44MNF	24 months
5 - 38°C	Curing Solution EC-291B	24 months
(40 - 100°F)	Thinner TR-114	24 months
	Thinner TR-102	24 months

### 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: September 2020 (supersedes January 2015) - 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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