

# 10PW20-4

## Water Reducible Epoxy Primer

### Technical Data Sheet

#### Product Group

Epoxy primer

#### Characteristics



Product  
Information

- This chemically cured, water reducible epoxy primer is designed to provide corrosion and chemical resistance over aluminum substrates. It may be topcoated with epoxy or polyurethane.

#### Components



Curing Solution  
Thinner

Curing Solution: ECW-104  
Thinner: DI water

#### Specifications



Qualified  
Product List

EADS (CASA)	Z-12.141
Lockheed Martin	G37.5422
US Military	MIL-PRF-85582 Ty I, CI C2

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

#### Surface Conditions









Cleaning

- Surface pretreatment is an essential part of the painting process
- Prepare surface per MIL-PRF-85582

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### Instruction for Use

	<p>Mixing Ratio (volume)</p>	<p>3 parts 1 part</p>	<p>Base 10PW20-4 Curing Solution ECW-104 Thinner DI water (15% by volume maximum)</p>
<ul style="list-style-type: none"> <li>- Stir or Shake till all pigment is uniformly dispersed before adding curing solution.</li> <li>- Pour the quart of ECW-104 curing solution into the gallon can of 10PW20-4 base. Place on shaker for two minutes, then remove. Check viscosity. If necessary, further reduce the mixture with DI water additions of 5% by volume of mixed coating up to a maximum of 15%. DO NOT add more than this amount. Allow the reduced material an induction time of 20 minutes before using. The material is now ready for spray application.</li> </ul>			
	<p>Induction Time</p>	<p>20 minutes</p>	
	<p>Initial Spraying Viscosity (25°C/77°F)</p>	<p>37 – 60 seconds (reduced 10% by volume with DI water) ISO-Cup 4 20 – 26 seconds(reduced 10% by volume with DI water) Zahn-Cup Signature #2 18 - 25 seconds (reduced 10% by volume with DI water) #4 Ford</p>	
<p>The Zahn cup and ISO cup data are provided as application guidelines only. The quality control requirement per MIL-PRF-85582 is the Ford cup viscosity.</p>			
	<p>Note</p>	<p>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.</p>	
	<p>Pot life (25°C/77°F)</p>	<p>4 hours</p>	
	<p>Dry Film Thickness (DFT)</p>	<p>15 – 25 micron (µm) 0.6 – 1.0 mils</p>	

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### 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

Air 1.2 – 1.4 mm nozzle orifice  
HVLP 1.2 – 1.4 mm nozzle orifice



Number of  
Coats

Spray a single uniform wet coat to recommended dry film thickness.









Cleaning of  
Equipment

Flush equipment with water first. Then use TR-19 to clean residue from equipment. If material dries on equipment, omit water flush and use TR-19 only.

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### Physical Properties

	<p>Drying Times (25 +/- 2°C / 77 +/- 2°F, 55 +/- 5% RH)</p>	<p>Full cure Dry to topcoat Dry hard</p>	<p>14 days (90% cure in 7 days) 2 hours 6 hours</p>
<p>Accelerated cure</p>		<p>Dry to handle</p>	<p>Allow to flash dry at 55°-80°F (13°-27°C) for a minimum of one hour, then 30 – 60 minutes at 120°F – 140°F (49°C – 60°C)</p>
<p>Full cure</p>		<p>Allow to flash dry at 55°-80°F (13°-27°C) for a minimum of one hour before force curing at 145°-155°F (63°-68°C) for 24 hours.</p>	
	<p>Theoretical Coverage</p>	<p>20.3 m<sup>2</sup> per liter ready to apply at 18 µm dry film thickness 826 ft<sup>2</sup> per US gallon ready to apply at 0.7 mil dry film thickness</p>	
	<p>Dry Film Weight</p>	<p>39.8 g/m<sup>2</sup>/25 micron 0.008 lbs/ft<sup>2</sup>/1.0 mil</p>	
	<p>Volatile Organic Compounds</p>	<p>Max 340 g/l admixed Max. 2.8 lb/gal</p>	
	<p>Gloss (60°)</p>	<p>&lt;10 GU</p>	
	<p>Color</p>	<p>Light green</p>	

## 10PW20-4 Water Reducible Epoxy Primer



Flash-point

10PW20-4  
ECW-104

93°C / 200°F  
23°C / 74°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.

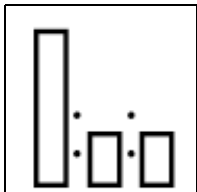
### Safety Precautions







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.

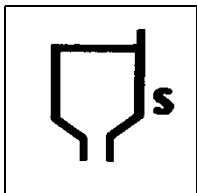
**Issue date: January 2015 (supersedes August 2009) - FOR PROFESSIONAL USE ONLY**

**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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	<b>Base:</b> 10PW20-4		<b>Curing Solution:</b> ECW-104		<b>Thinner:</b> Di-Water
 	<b>3 parts</b>		<b>1 part</b>		<b>15% by Volume Max</b>

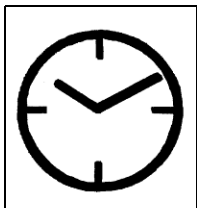


**At 77°F (25°C):** **Mix Viscosity:** 37 – 60 seconds (reduced 10% by volume with DI water) ISO-Cup 4  
 20 – 26 seconds (reduced 10% by volume with DI water) Zahn-Cup Signature #2  
 18 – 25 seconds (reduced 10% by volume with DI water) #4 Ford

**Pot life:** 4 Hours  
**Induction Time:** 20 minutes



**Coats needed:** Spray a single uniform wet coat to recommended dry film thickness.  
**Dry film thickness:** 0.6 – 1.0 mils (15 – 25 microns)



**At 75 to 80°F & 50% RH**

<b>Full cure:</b>	<b>14 Days</b>
<b>Dry to topcoat:</b>	<b>2 Hours</b>
<b>Dry hard:</b>	<b>6 Hours</b>
<b>Clean Up:</b>	<b>Use TR-19</b>



Type equipment	Tip Size	Gun Air Pres.	Pot Air Pres.	Other
HVLP	1.2-1.4 mm	8-25 psi	Varies w/pot size	Iwata, Sata, BinksMach 1

We have taken reasonable care in preparing the Mixing Guide and in collecting and preparing material for inclusion in it but do not represent or warrant that it is free from error or that the information content is complete or accurate. The information is advisory only and the use of the Material is solely at your own risk.