

# 23T3 Series

## VOC Compliant Abrasion Resistant Polyurethane Coating

### Technical Data Sheet

#### Product Group

Abrasion resistant coating

#### Characteristics



Product  
Information

- Two component PTFE-filled, polyurethane anti-chafe air curing coating.
- Inherently light stable with excellent abrasion resistance and surface lubricity.
- For use on aircraft control surfaces.
- Resistant to hydraulic fluids (Skydrol®, Aerosafe, HyJet), aircraft fuel, engine oil, solvents, water and cleaning compounds.

#### Components



Curing Solution  
Thinner

Curing solution PC-216  
Thinner: 66C28, 66C20, TR-19, TR-20 or TR-115 where VOC regulations allow.

#### Specifications



Qualified  
Product List

Boeing (BAC 700 and BAC 707 only)	BMS 10-86, Type I, Grade D
Boeing Mesa	HMS 15-1218
Bombardier	BAMS 565-005, Type II
	BAMS 565-005, Type III
Bombardier/deHavilland	DHMS C4.08, Amend. 2
Embraer	MEP 10-071
Lockheed Martin	FMS 3120, Type I
	5PTMRL40, Type I
	LMA –MR008, Type I
	GC130RJ
Northrop Grumman	PWA 36514
Pratt & Whitney	SMS 93, Ty I
Shorts Brothers	I756.18.618
Ilyushin	

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)

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#### Surface Conditions



Cleaning

Surface pretreatment is an essential part of the painting process.

- Primed surface should be coated within 2-48 hours.

Note: If the primed surface dries longer than 48 hours, it should be lightly sanded with #400 grit or equivalent sandpaper followed by a solvent wash using a clean cotton cloth dampened with MEK before topcoat.

#### Instruction for Use



Mixing Ratio  
(volume)

3 parts  
1 part

Base 23T3-XXX  
Curing Solution PC-216

Where VOC regulations allow and depending on temperature and humidity conditions, additional thinning may be made with 66C28, 66C20, TR-19, TR-20 or TR-115. Up to 1 part thinner may be used.

- Stir or Shake until all pigment is uniformly dispersed before adding curing solution.
- Stir the catalyzed mixture thoroughly.



Induction Time

None



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

16 – 24 seconds ISO Cup #6  
15 – 27 seconds Signature Zahn Cup #3

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.



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.

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Pot life  
(25°C/77°F)

After 1 hour: 72 seconds ISO Cup #6  
After 2 hours: Sprayable.



Dry Film  
Thickness  
(DFT)

125 – 250 microns (µm)  
5 – 10 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

Air 1.8 mm nozzle orifice  
HVLP 1.4 mm nozzle orifice  
Air Assisted, Electrostatic .33 mm nozzle orifice



Note

If roller application is desired use foam roller (Foam Pro Fine Finishing Roller Model #165 or equivalent for use with oil and clear solvent based products). Rollers will degrade and should be changed out every 30 minutes. For additional information please see the 23T3 roller application process document.

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Number of  
Coats

Apply wet cross coats, allowing 15 minutes to flash off between coats, to achieve 2-3 mils (50-75 microns) dry per coat.



Cleaning of  
Equipment

MEK, TR-19, or C28/15

#### Physical Properties



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

Set to touch	1.5 – 2 hours
Tack free	3.25 – 3.5 hours
Dry to touch	5.25 hours



Note

An accelerated cure schedule may be used. Once the required film thickness has been achieved, flash dry the applied coating a minimum of one hour at 75°F (24°C), 50%RH. Cure for two hours at 150°F (66°C), with good air movement.



Theoretical  
Coverage

20 m<sup>2</sup> per liter ready to apply at 25.4 μm dry film thickness  
800 ft<sup>2</sup> per US gallon ready to apply at 1 mil dry film thickness



Dry Film Weight

44 g/m<sup>2</sup> at 25.4 microns  
0.0090 lbs/ft<sup>2</sup> at 1 mil

Varies slightly with color



Volatile Organic  
Compounds

Max 420 g/l  
Max 3.5 lb/gal maximum (without thinner), per ASTM D3960.



Gloss (60°)

24 maximum

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Color

As required



Flash-point

23T3-XXX	27°C / 80°F
PC-216	28°C / 78°F
66C28	13°C / 55°F
66C20	-4°C / 25°F
TR-19	-4°C / 25°F
TR-20	7°C / 45°F
TR-115	-17°C / 1°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 23T3-XXX and PC-216. 24 months for 66C28, 66C20, TR-19, TR-20, and TR-115. 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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