

# 23T3 Series Technical Data Sheet

## Product Group

VOC compliant abrasion resistant coating.

## Characteristics



Product  
Information

A two-component, PTFE-filled, anti-chafe, air curing, low VOC compliant topcoat. This coating is inherently light stable with excellent abrasion resistance and surface lubricity.

23T3 Series topcoat is resistant to phosphate ester hydraulic fluid, aircraft fuel, engine oil, solvents, water and cleaning compounds and is used on aircraft control surfaces.

## Components



Curing Solution  
Thinner

Base Material	23T3-XXX
Curing Solution	PC-216
Thinner	66C28, 66C20, TR-19, TR-20 or TR-115

## 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
Northrop Grumman	GC130RJ
Pratt & Whitney	PWA 36514
Shorts Brothers	SMS 93, Ty I
Ilyushin	TI756.18.618

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).

## 23T3 Series Polyurethane Topcoat

### Surface Conditions



Cleaning

Observe the overcoat window of the primer.

Sand pre-existing topcoats with 220 grit or equivalent sandpaper to a dull mat finish, and solvent clean prior to applying 23T3.

### Instruction for Use



Mixing Ratio  
(volume)

3 parts  
1 part  
\*1 part

Base 23T3-XXX  
Curing Solution PC-216  
Thinner

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

\*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.



Induction Time

None.



Initial Spraying  
Viscosity  
(23°C/73°F)

16-24 seconds ISO Cup #6  
15-25 seconds Signature Zahn Cup #3



Note

The use 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.

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.

## 23T3 Series Polyurethane Topcoat



Pot life  
(23°C/73°F)

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



Dry Film  
Thickness  
(DFT)

125-250 μm  
5-10 mils

### Application Recommendations



Conditions

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



Note

23T3 Series 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	Nozzle orifice	Product flow	Dynamic air pressure at gun-inlet*
Conventional Pressure Feed:	Gravity Feed: 1.4mm-1.6 mm N/A	NA	Use enough Air Pressure. <math>\leq 100\text{psi}</math> or (7 bar)
HVLP/ next generation Pressure Feed:	Gravity Feed: 1.4mm-1.6 mm, N/A	NA	Maximize and ensure uniform fan pattern, not to exceed regulatory guideline for air pressure at the cap.

## 23T3 Series Polyurethane Topcoat



Note

If roller application is desired, use a fine finishing for solvent-based products. Rollers will degrade and should be changed every 30 minutes.



Number of  
Coats

Apply full wet coats, allowing 15 minutes to flash off between coats, to achieve 50-75  $\mu\text{m}$  (2-3 mils) dry per coat.



Cleaning of  
Equipment

MEK, TR-19, or C28/15.

### Physical Properties



Drying Times  
(23°C / 73°F)

Dust free 1.5-2 hrs

Tack free 3.25-3.5 hrs

Dry through 5.25 hrs

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

4.24 m<sup>2</sup> per liter ready to apply (without thinner) at 125  $\mu\text{m}$  dry film thickness.  
173 ft<sup>2</sup> per US gallon ready to apply (without thinner) at 5 mils dry film thickness.



Dry Film Weight

For 23T3-105:  
1.31 g/m<sup>2</sup>/ $\mu\text{m}$   
0.00684 lbs/ft<sup>2</sup>/mil



Note

Varies slightly with color.

## 23T3 Series Polyurethane Topcoat



Volatile Organic  
Compounds

Without thinner:  
Max. 420 g/l  
Max. 3.5 lbs/gal



Gloss (60°)

Maximum 65



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 / 41 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	23T3-XXX	12 months
5 - 38°C	PC-216	12 months
(41 - 100°F)	66C28	24 months
	66C20	24 months
	TR-19	24 months
	TR-20	24 months
	TR-115	24 months

## 23T3 Series Polyurethane Topcoat

### 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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