**AkzoNobel**
**Aerospace Coatings**

# 23T3 Series

## VOC Compliant Abrasion Resistant Polyurethane Coating

AkzoNobel
Tomorrow's Answers Today

### 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/Reducer

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 |
| Northrop Grumman | GC130RJ |
| Pratt & Whitney | PWA 36514 |
| Shorts Brothers | SMS 93, Ty I |

The complete AkzoNobel Aerospace Coatings qualified product list (QPL) can be found at: **www.akzonobel.com/aerospace**

### 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.



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## Instruction for Use

| | |
|---|---|
| Mixing Ratio (volume) | 3 parts Base 23T3-XXX<br>1 part Curing Solution PC-216<br>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.<br>- Stir or shake base material thoroughly until all pigment is uniformly dispersed before adding curing solution.<br>- Stir the catalyzed mixture thoroughly and the material is ready to apply by brush or spray. |
| Induction Time | None |
| Initial Spraying Viscosity (25ºC/77ºF) | 16 – 24 seconds ISO Cup #6<br>15 – 27 seconds Signature Zahn Cup #3<br><br>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. 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 (25ºC/77ºF) | After 1 hour: 72 seconds ISO Cup #6<br>After 2 hours: Sprayable. |
| Dry Film Thickness (DFT) | 125 – 250 microns (µm)<br>5 – 10 mils |

## Application Recommendations

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|---|---|
| Conditions | Temperature: 15 – 35°C / 59 – 95°F<br>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. |



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| 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. | |
| 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 +/- 2ºC / 77 +/- 2ºF, 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 $m^2$ per liter ready to apply at 25.4 µm dry film thickness<br>800 $ft^2$ per US gallon ready to apply at 1 mil dry film thickness | |
| Dry Film Weight | 44 $g/m^2$ at 25.4 microns<br>0.0090 $lbs/ft^2$ at 1 mil<br>Varies slightly with color | |
| Volatile Organic Compounds | Max 420 g/l<br>Max 3.5 lb/gal maximum (without thinner), per ASTM D3960. | |
| Gloss (60º) | 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 38ºC / 40 and 100ºF 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<br>5 - 38°C<br>(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 MSDSs are available on request.

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