

20P1-21

Technical Data Sheet

Product Group

Fuel Tank Coating

Characteristics



Product
Information

- 420 g/l polyurethane coating
- Intended for the protection of aircraft integral fuel tanks against corrosion from fuel contaminants
- Lead-free and EE-acetate free

Components



Curing Solution
Thinner

Base material	20P1-21
Curing Solution	PC-235
Thinner	TR-117

Specifications



Qualified
Product List

Boeing Long Beach	DMS 1850, Ty I, Comp B
Bombardier	BAMS 565-010, Gr B
Bombardier/deHavilland	DHMS C4.06, Amend 1
Gulfstream	GAMPS 3102 Type I
US Military	AMS-C-27725, Ty I
SAE AMS	AMS-C-27725, Ty I

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.

Surface Conditions



Cleaning

- Surface pretreatment is an essential part of the painting process.
- Follow the specification requirements for cleaning and pretreatment application.

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Instruction for Use



Mixing Ratio
(volume)

By volume

3 parts	20P1-21 base
1 parts	PC-235 curing solution
0 -1 parts	TR-117 thinner

DMS 1850

3 parts	20P1-21 base
1 part	PC-235 curing solution
0.5 parts	TR-117 thinner

- Stir or Shake until all pigment is uniformly dispersed before adding curing solution.
- Stir the catalyzed mixture thoroughly.
- Depending on equipment, up to 1 part by volume of TR-117 may be used to enhance appearance of the finish. VOC is affected by use of TR-117.



Induction Time

15 minutes



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

32 – 44 seconds 4 mm ISO Cup.
19 – 24 seconds #2 Signature Zahn Cup.
10 – 25 seconds # 4 Ford Cup
13 – 23 seconds # 4 Ford Cup (AMS)
15 – 45 seconds # 4 Ford Cup (DHMS)
13 – 18 seconds # 4 Ford Cup for (DMS 1850)

The uses of Ford and 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)

4 hours



Dry Film
Thickness
(DFT)

20 – 30 micron (μm)
0.8 – 1.2 mils

Application Recommendations



Conditions

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



Note

20P1-21 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 Air	1.4 mm (.055 inch)	N/A	N/A
HVLP	1.4 mm (.055 inch)	N/A	N/A



Number of
Coats

Spray apply one or two uniform wet coats to recommended dry film thickness.

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Cleaning of
Equipment

Use MEK or similar solvent.

Physical Properties



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

Tack free	3 hours maximum
Dry hard	12 hours maximum
Full cure	14 days

- The ambient cure schedule is affected by relative humidity.
14-day room temperature cure requires a minimum 50% RH.
- The following accelerated cure schedule generally results in maximum chemical resistance properties for this coating: flash-off 2 hrs @ ambient conditions, followed by 4 hours at 70°C/158°F ± 2°C.



Theoretical
Coverage

19.4 m² per liter ready to apply at 25.4 µm dry film thickness
791 ft² per US gallon ready to apply at 1 mil dry film thickness



Dry Film Weight

44.08 g/m² at 25.4 microns
.0090 lbs/ft² at 1.0 mil



Volatile Organic
Compounds

Max. 420 g/l
Max. 3.5 lbs/gal



Gloss (60°)

25 GU



Color

Yellow

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Flash-point

20P1-21
PC-235
TR-117

8°C / 46°F
7°C / 45°F
-13°C / 9°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 may vary per OEM specification requirements. Refer to container label for specific storage life information.

Shelf life
5 - 38°C
(41 - 100°F)

24 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 Safety Data Sheet (SDS) and label of the individual products carefully before using the products. The SDS's are available on request.

Issue date: November 2022 (Supersedes April 2021) - 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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