

TOPCOAT FRS40

FIRE RETARDANT FINISHES FOR CABIN INTERIORS

AkzoNobel

Product information



Three-component semi gloss and matt solvent-borne polyurethane topcoat for aircraft interiors. FRS40 is recommended for use with FRS30 surfacer.

Technical data sheets for FRS40 Metallic and FRS40 Flex shades are available on our website.

Components



Base FRS40
Hardener / Catalyst FRS
Thinner FRSL

Specifications



Qualified in accordance with:

Airbus: AIMS 04-08-002, CML 16-047A, ABS 5650B, CML-04-JMD5

FACC FMS 5550 class 1

C&D ZODIAC : CDM240-00, CDM240-01

Pilatus : PMS0600-52-02

Meets the following requirements:

JAR / FAR Part 25 §25.853 (a), (c / d) / Change 14 / Amdt. 25-83

Product information mentioned in the technical datasheet is given for information purposes and can differ from requirements of specifications above. In that case, customer requirements are valid for your application.

Physical properties



THEORETICAL COVERAGE

7 m²/kg (390 ft²/gal) for 50 µm (2 mils) dry (base and hardener undiluted)

DRY FILM WEIGHT

1.9

VOC

450-500 g/L (3.76-4.17 lbs/gal) for a 10-20% dilution (ASTM D3960 and ISO 11890-1).

SHELF LIFE / STORAGE

36 months for the base, 24 months for the hardener and 48 months for the thinner stored between 5°C and 35°C (41°F and 95°F) in full and sealed original packaging.

GLOSS LEVEL

Matt or semi-gloss

NOTES

Flash point: > 24°C (75°F) for the base

Gloss levels have been determined using glossmeter with an angle of incidence of 60°.

The theoretical consumption value doesn't take into account the transfer efficiency for spray application

Surface preparation



Can be applied on phenolic and plastic composites and on aluminium.

For surfaces that require surface preparation, the use of FRS30 filler is recommended.

Application on a composite substrate (new or reworked):

FRS30 is used as a primer/surfacer (see product data sheet for surface preparation).

FRS30 should be sanded with a P240 to P320 grade abrasive paper (dry or wet) and cleaned with isopropyl alcohol.

Application on a plastic substrate (new or reworked):

Except where there are surface defects, FRS40 can be applied directly onto plastics, except polycarbonates. The substrate should be sanded with P240 to P400 grade paper.

Then it should be blown dried and cleaned with isopropyl alcohol.

Application on aluminium:

FRS40 should be applied on a system composed of:

- Surface treatment (OAC type)
- Epoxy corrosion resistant primer (F69 type)

The primer should be dried for minimum 1 hour at 60°C (140°F) before applying the FRS40.

All recommendation mentioned above are given for information.

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Instructions for use



SPRAY APPLICATION

MIXING RATIO

	Mixing ratio by weight	Mixing ratio by volume
Base	100	8 V
Hardener / Catalyst	10	1 V
Thinner	10 to 20	1 to 2 V

MIXING PROCEDURE

Ideally, the unmixed products should be stored between 18°C and 25°C (64°F and 77°F) for 24 hours before use. It is recommended to mix the base with the gyroscopic mixer before use.

Mixing by weight is recommended.
Mix the base and hardener until the mixture is homogeneous.
Then add thinner and mix.

Note: it recommended to sieve the diluted mixture using a 150-190 µm (6-8 mils) filter.

INDUCTION TIME

None

Spraying viscosity at 20°C / 68°F

Dilution rate by weight	CA 4	ISO 6
15-20%	35s ± 5s	22s ± 5s

POT LIFE

6 hours

NOTE

Viscosities mentioned above are corresponding to the recommended range of viscosity to ensure compliant application. The range of dilution must be used to adjust viscosity to reach the recommended one.

ISO 6 cup is the reference cup. The others are given for information purposes.

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Application recommendations



CONDITIONS

Temperature 15°C to 35°C (59°F to 95°F)

Relative humidity 20% to 80%

EQUIPMENT

Gravity compressed air gun Nozzle 1.8 mm to 2.2 mm

DRY / WET FILM THICKNESS

30 µm to 60 µm (1.2 to 2.4 mils) dry/60µm to 120µm (2.4 to 4.7 mils) wet.

NUMBER OF COATS

For smooth surface: Apply 1 or 2 crossed coats.

For textured surface: Dilute the first coat at around 25 %, wait half an hour until the film becomes semi-glossy.

- Fine texture: decrease the air pressure of 1.5 to 2 bars (22 to 29 psi) and apply at 50 cm from the surface.

- Coarse texture: decrease the air pressure from 1.0 to 1.5 bar (15 to 22 psi) and apply at 20 cm from the surface.

EQUIPMENT CLEANING

Clean the equipment with a suitable solvent, such as FRSL or D770-B from Mapaero

NOTE

Spray with dry, oil-free air.

The pressures as indicated in order to achieve the textures are provided for guidance and will need to be adjusted according to the conditions of application (e.g.: type of gun).

Drying times



Dust free

23°C (73°F)

15 minutes

40°C (104°F)

NA *

60°C (140°F)

NA *

Dry to handle

8 hours

4 hours

1 hour

Recoatable

1 hour to 24 hours

30 minutes to 8 hours

15 minutes to 8 hours

Fully Cured

7 days

3 days

12 hours

NOTE

Drying times have been determined using tests pieces of a thickness < 2mm for 45µm (1.8mils) of dry film.

*N.A. : Not applicable

Defects & corrections



In the event of a defect, contact your Quality Department.

Health & Safety



See the product Safety Data Sheet

The MSDS are available on our website www.mapaero.com.

Packing



The base FRS40 is available in 1 kg and 5 kg.

The hardener FRS is available in 0.5kg, 1 kg and 5 kg.

The thinner FRSL is available in 1L and 5 L.

WARRANTY : We guarantee our products against hidden defaults over material and preparation. Our Responsibility is limited to the obligation of freely replacing the defective material without there being a claim for any compensation. The advice we give is based on our experience but it might not be absolutely right. Consequently this does not imply our responsibility in case of inefficiency. Furthermore our company cannot be responsible for any material or corporal damages caused due to a misuse or mishandling of our products. Any concession to these clauses, to be valid, must be an official document issued by our offices and signed by our direction.