

# TOPCOAT FRS40 -AM

## FIRE RETARDANT FINISHES FOR CABIN INTERIORS

AkzoNobel

### Product information



Three-component semi gloss solvent-borne polyurethane topcoat for aircraft interiors. FRS40 AM is a decorative topcoat and has as a primary function the surface/substrate protection.

FRS40-AM is recommended for use with FRS30 Surfacer.

FRS40 contains silver antimicrobial technology to preserve the coating surface and prevent degradation caused by microbial growth.

The inorganic silver antimicrobial additive contained in FRS40 AM is EPA/FIFRA approved, FDA approved (via FCNs 432, 433 & 476) and is approved under NSF (National Sanitation Foundation) Standard 51.

This coating does not protect users or others against disease causing microbes.

This technology is not a substitute for good hygiene and/or cleaning practices.

### Components



**Base** FRS40-AM  
**Hardener / Catalyst** FRS  
**Thinner** FRSL

### Specifications



**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**

Approx. 6 m<sup>2</sup>/kg (290 to 360 ft<sup>2</sup>/gal) for 50 µm (2 mils) dry (base and hardener undiluted)

**DRY FILM WEIGHT**

1.5 to 1.9 (according to colors).

**VOC**

500-620 g/L (4.17-5.17 lbs/gal) for a 15% dilution (ASTM D3960 and ISO 11890-1). (according to colors)

**SHELF LIFE / STORAGE**

12 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**

Semi-gloss (20 - 30 GU)

**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-AM 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-AM 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-AM.

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.

Mixing by weight is recommended.

Mix the base and hardener until the mixture is homogeneous.

Then add thinner and mix.

Note: it is 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](http://www.mapaero.com).

### Packing



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

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

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.