

TOPCOAT FRC

FIRE RETARDANT FINISHES FOR CABIN INTERIORS

AkzoNobel

Product information



Three component water-based direct texture matt polyurethane topcoat.
FRC topcoat is used for commercial aircraft interiors cabins.
Can be applied with cabin interior primers FR1-55, FR4-45 and FRS30.

Components



Base FRC
Hardener / Catalyst FRC
Thinner Water

Specifications



Qualified in accordance with:
Airbus: AIMS 04-08-004 type B, ABS 5650F
C&D Zodiac : CDM240-00, CDM240-01

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
7,4 m²/kg (302 sq.ft/gal) for 50 µm (2 mils) dry

DRY FILM WEIGHT
1.4 to 1.7 depending on the shades

VOC
45 g/L or 0.38 lbs/gal (ISO 11890-1) and 110 g/L or 1.25 lbs/gal (ASTM D3960)

SHELF LIFE / STORAGE
12 months for the base and hardener, 6 months for the TUK stored between 5°C and 35°C (41°F and 95°F) in full and sealed original packaging.

GLOSS LEVEL
2-5 GU at 60°

NOTES
Flash point : > 100°C (212°F) base and > 60°C (140°F) hardener
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



FRC top coat can be applied on phenolic and plastic composites and on aluminium.
For surfaces that require surface preparation, using FR1-55, FR4-45 or FRS30 filler is recommended.

Application on a composite substrate (new or reworked):
FR1-55 (or FR4-45 or FRS30) is used as a filler/surfacer (see product Technical Data Sheet for surface preparation).
FR1-55 (or FR4-45 or FRS30) should be sanded with a P240 to P400 grade abrasive paper and cleaned with isopropyl alcohol.

Application on a plastic substrate (new or reworked):
Except where there are surface defects, FRC can be applied directly onto plastics. The substrate should be sanded with P240 to P400 grade paper. It should then be blow dried and cleaned with isopropyl alcohol.

Application on aluminium:
FRC should be applied on a system composed of:
- Surface treatment (anodizing, conversion)
- Epoxy corrosion resistant primer (F69 type from Mapaero)
The primer should be dried for minimum 1 hour at 60°C (140°F) before applying the FRC top coat.
All recommendations mentioned above are given for information.

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Instructions for use



SPRAY APPLICATION

MIXING RATIO

Base

Hardener / Catalyst

Water

Mixing ratio by weight

100

20

20 to 40 (according to the shades)

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.

The FRC base should be mixed for 5 minutes in a pneumatic or oscillating mixer before use.

Mix the base and hardener until the mixture is completely homogeneous. Add the water until the desired viscosity.

The mixture must be made at a temperature between 15°C (59°F) and 35°C (95°F).

Mixing by weight is recommended.

Remark : Light colours require a low dilution. The dark colours require a high dilution.

INDUCTION TIME

None

Spraying viscosity at 20°C / 68°F

Dilution Rate

1V

ISO 6

22s ± 5s

POT LIFE

3 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.

Water based paints show a thixotropic behaviour. This implies that efflux time can vary according different parameters such as: type of mixing, mixing quantity, dilution, temperature, time between mixing and viscosity measurement.

Instructions for use



BRUSH APPLICATION

Base

Hardener / Catalyst

Water

Mixing ratio by weight

100

20

5 to 15

MIXING PROCEDURE

Remove the safety ring and press down on the cap to release the FR2-55 hardener. Shake the container for approximately 1 minute. Remove the cap to be able to apply the FR2-55 with a suitable brush.

If the material after shaking of 1 Min. is not homogeneous please use a stick for further mixing (around 1 Min.) until the material is homogen.

INDUCTION TIME

None

POT LIFE

1 hour for a 5% dilution

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Application recommendations



CONDITIONS

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

Relative humidity 30 % to 70 %

EQUIPMENT

Gravity compressed air gun Nozzle 1.5 mm to 2 mm

DRY / WET FILM THICKNESS

30 to 60 µm (1.2 to 2.4 mils) dry/ 60 µm to 120 µm (3.5 to 7 mils) wet.

NUMBER OF COATS

With an air spray gun, apply several coats to achieve the desired thickness. The number of coats depends on the size and the shape to be painted.

EQUIPMENT CLEANING

Clean equipment with water, then with a suitable cleaning thinner.

NOTE

Spray with dry and oil-free air.

Drying times



Dust free

Dry to handle

Recoatable

Fully Cured

23°C (73°F)

30 minutes

1 hour to 3 hours

1 hour to 12 hours

3 days

60°C (140°F)

NA

15 minutes to 30 minutes

30 minutes to 4 hours

4 hours

NOTE

Drying times have been determined using test pieces of a thickness < 2 mm and for 40 µm (1.6 mils) of dry film.

*N.A. : Not applicable

Defects & corrections



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

Health & Safety



See the product security data sheets.

The MSDS are available on our site internet www.mapaero.com

Packing



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

The hardener FRC is available in 1 kg and 5 kg.

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.