

TOPCOAT FR6-55

FIRE RETARDANT FINISHES FOR CABIN INTERIORS

AkzoNobel

Product information



Three-component water-based semi gloss polyurethane topcoat used for the commercial interiors of aircraft passenger cabins. Can be applied with cabin interior primers FR1-55 and FR4-45.

Components



Base FR6-55
Hardener / Catalyst FR6-55
Thinner Water

Specifications



Qualified in accordance with:
Airbus : AIMS 04-08-002 et ABS 5650B, CML 16-047, CML-04-JMD9
FMS 5550 class 2

Meets the following requirements:
JAR/FAR Section 25 Paragraph 25.853

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
9 m²/kg for 40 µm (1.6 mils) dry (base and hardener undiluted)

DRY FILM WEIGHT
1.8

VOC
60 g/l or 0.5 lb/gal (ISO11890-1) and 150 g/l or 1.2 lb/gal (ASTM D3960)

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

GLOSS LEVEL
12-18 GU (smooth) at 60°, 7-11 GU (textured) at 60°

NOTES
Flashpoint: > 100°C (212°F) for base and >60°C (140°F) for hardener/catalyst

Compatible with FR1/55 or FR4/45 two-component water-based polyurethane surfacer. 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 to aluminium.
For surfaces that require surface preparation, the use of FR1-55 or FR4-45 filler is recommended.

Application on a composite substrate (new or reworked):
FR4-45 (or FR1-55) is used as a filler/surfacer (see product Technical Data Sheet for surface preparation).
FR4-45 (or FR1-55) 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, FR6-55 can be applied directly onto thermoplastics. 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:
FR6-55 should be applied on:
- Surface treatment (OAC, Alodine1200, etc.)
- Epoxy corrosion resistant primer (F69)
The primer should be dried for a minimum of 1 hour at 60°C before applying the top coat.
All recommendations 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	4 V
Hardener / Catalyst	20	1 V
Water	15 to 25	0.8 to 1.4 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 the water and mix.

The mixture must be made at a temperature between 15°C and 35°C (60-95°F).

Note : it is recommended to sieve the diluted mixture using a 90-150µm (3.5-6 mils) filter.

INDUCTION TIME

None

Spraying viscosity at 20°C / 68°F

Dilution rate by weight	ISO 6
20-25 %	22s ± 5s

POT LIFE

3 hours at 23°C for a 25% dilution

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

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BRUSH APPLICATION

	Mixing ratio by weight	Mixing ratio by volume
Base	100	4 V
Hardener / Catalyst	20	1 V
Water	5 to 15	0.3 to 0.8 V

MIXING PROCEDURE

Ideally, the unmixed products should be stored at 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 consistent.

Then add the water and mix.

The mixture must be made at a temperature between 15°C and 35°C (60-95°F).



Do not hermetically close TUK after mixing base and hardener.

INDUCTION TIME

None

POT LIFE

1 hour at 23°C (73°F) for a 5% dilution

Application recommendations



CONDITIONS

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

Relative humidity 20% to 70%

EQUIPMENT

Gravity compressed air gun Nozzle 1.5 to 2 mm

DRY / WET FILM THICKNESS

30 to 60 µm (1.2 to 2.4 mils) dry / 90 to 170 µm (3.5 to 6.7 mils) wet

NUMBER OF COATS

Follow the recommendations above and apply the product in crossed coats, pressure 3 bar (44 psi) +/- 0.5 (7 psi) dynamic, to achieve the required thickness (approximately 2 crossed coats for 60 µm or 2.4 mils dry).

For a smooth appearance:

Apply 1 to 2 crossed coats.

For a textured appearance:

Dilute the first coat to approximately 20%, wait 30 to 45 minutes for the film to achieve a semi gloss appearance

- Fine texture : Reduce the air pressure by 1.5 to 2 bar (22 to 29 psi) (0.7 to 0.9 dynamic bar) and apply 50 cm from the mounting.

- Coarse texture: reduce the air pressure by 1.0 to 1.5 bar (15 to 22 psi) (0.4 to 0.7 dynamic bar) and apply 20 cm from the mounting.

EQUIPMENT CLEANING

Clean the equipment with tap water then with a suitable cleaning thinner.

NOTE

Spray with dry, oil-free air.

Indicated pressures for textures are indicative and have to be adjusted according to application conditions (type of spray gun...)

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Drying times



	23°C (73°F)	40°C (104°F)	60°C (140°F)	80°C (176°F)
Dust free	30 minutes	N.A*	NA*	NA*
Dry to handle	4 to 5 hours	2 hours	1 hour	N.A.*
Fully Cured	7 days	3 days	12 hours	8 hours

NOTE

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

At 23°C, we assume a hygrometry of 50% and a sufficient air flow.

*N.A.: Non applicable

Defects & corrections



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

Health & Safety



See the product Safety Data Sheets.

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

Packing



The FR6-55 base is available in 1kg and 5kg.

The FR6-55 hardener is available in 1kg and 5kg

The FR6-55 Kit is available in 6kg (5kg base and 1kg hardener)

These products are not subjected to IATA regulations for air transportation.

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.