

TOPCOAT F70-A

COATINGS FOR AIRCRAFT STRUCTURE PROTECTION

AkzoNobel

Product information



Epoxy , waterborne glossy topcoat three components, with high chemical resistance. This product is designed for the protection of metallic structures on aircraft.

F70-A topcoat has to be used in combination with Mapaero primer P60-A.

Components



Base F70 -A

Hardener / Catalyst F70 -A

Thinner Demineralised water

Specifications



Qualified in accordance with:

Airbus AIMS 04-04-003, AIMS 04-04-040 , AIMS 04-04-041, AIMS 04-04-064, ABP 4-2130, ASNA 5148, PQ No. 10050 - 240-01
Dassault: DGQT 1.7.0.0120

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

23 m²/L (937 ft²/gal) for 25 µm (1 mil) dry (base and undiluted hardener)

DRY FILM WEIGHT

1.5

VOC

186 g/L or 1.55 lbs/gal (ISO 11890-1) and 397 g/L (3.31 lbs/gal) (ASTM D3960)

COLOR

Grey BAC 707 (M9001), grey FS26251, White Dassault 001, White Dassault 0036, NORMDEF 2625

SHELF LIFE / STORAGE

18 months for the base and hardener stored between 5°C and 35°C (41°F and 95°F) and in full and sealed original packaging. 12 months for Touch-Up Kits stored between 5°C and 35°C (41°F and 95°F) in full and sealed original packaging

GLOSS LEVEL

Above 50 GU at 60°

NOTES

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



Top coat F70-A should be applied on Mapaero P60-A primer.
See recoating time recommended on the P60-A primer technical data sheet .

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	2 V
Hardener / Catalyst	42	1 V
Water	110 to 150	3 V to 4 V

MIXING PROCEDURE

Ideally, the unmixed products should be stored between 18°C (64°F) and 25°C (77°F) for 24 hours before use.
The F70-A base should be mixed for 10 minutes in a pneumatic or oscillating mixer before use.
Mix the base and the hardener until the mixture is homogenous before adding demineralised water in two stages.
The mixture must be made at a temperature between 15°C (59°F) and 35°C (95°F).
Sieve the paint through a 80-150 µm (3.1-6.0 mils) filter.
Never add additional water once the paint mixture has been made.

INDUCTION TIME

None

Spraying viscosity at 20°C / 68°F

CA 4	ISO 4	Zahn 2
4 V	4 V	4 V
20 ± 3s	33 ± 4s	22 ± 3s

POT LIFE

8 hours (dilution 4 V)

NOTE

The pot life depends on the dilution ratio.

The paint viscosity may vary depending on the temperature and increase over the pot life.

The water used to dilute the paint should be demineralised.

Depending on the material used and the application temperature, the dilution may vary between 3 V and 4 V of demineralised water.

A 3 V dilution of demineralised water is recommended for the white tints application.

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

ISO 4 cup is the reference cup. The others are give for information purposes

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BRUSH APPLICATION

	Mixing ratio by weight	Mixing ratio by volume
Base	100	2 V
Hardener / Catalyst	42	1 V
Water	0 V or from 35 to 50	0 V or of 1 V in 1.5

MIXING PROCEDURE

Remove the safety ring and press down on the cap to release the F70-A hardener. Shake the container for approximately 1 minute. Remove the cap to be able to apply the F70-A topcoat with a suitable brush. If the material after shaking of 1 min is not homogenous please use a stick for further mixing (around 1 min) until the material is homogen.



Do not hermetically close TUK after mixing base and hardener.

INDUCTION TIME

In case of dilution, wait 3 minutes before adding demineralized water

POT LIFE

2 hours undiluted

NOTE

Spray with dry, oil-free air.

Application recommendations



CONDITIONS

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

Relative humidity 20 % to 85%

EQUIPMENT

Gravity compressed air gun Nozzle 0,8 mm to 1,8 mm

DRY / WET FILM THICKNESS

20 µm to 30 µm (0.8 to 1.2 mils) dry/ 55 µm to 85 µm (2.2 to 3.3 mils) wet.

NUMBER OF COATS

Apply several coats to achieve 20 µm to 30 µm (0.8 to 1.2 mils) dry thickness. The number of coats depends on the size and the shape of the part to which it is being applied. The recommended dynamic air pressure is 1.5 bar to 4 bar (22 to 58 psi).

EQUIPMENT CLEANING

Clean the equipment with a suitable cleaning solvent such as Mapaero D760, Mapaero D770-B aqueous cleaning solvent can also be used for cleaning the ready-to-use mixture.

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Drying times



	23°C (73°F)	60°C (140°F)	80°C (176°F)
Dust free	2 hours	40 minutes	5 minutes
Dry to handle	3 hours 30	1 hour	7 minutes
Dry to tape	3 hours 45	1 hour 15	10 minutes
Recoatable	5 minutes to 72 hours	5 minutes to 90 minutes	5 minutes to 25 minutes
Fully Cured	3 days	90 minutes	25 minutes

NOTE

Drying times have been determined using test pieces of a thickness < 2 mm and for 20 µm (0.8 mils) of dry film. Before accelerated drying 70°C (158°F), leave to flash off for at least 15 minutes at room temperature. To recoat F70-A top coat with another product, contact us. For the F70-A top coat infrared drying, contact us. MEK Resistance: After 10 hours at 23°C

*N.A. : Not applicable

Defects & corrections



In the event of a defect, contact your Quality Department. **In case of low thickness:**

Apply a thin coat of F70-A to achieve the desired thickness. If the above recommended recoating time is exceeded, reactivate with a Scotch-Brite type.

In case of thick coats:

Contact you Quality Department.

If there are micro-bubbles, running, rejects or numerous inclusions:

Reactivate the surface using an abrasive paper (grade 220 to 320), remove the dust then clean the surface using an approved cleaning product. Apply a thin coat of F70-A to achieve the required thickness.

In case of significant defects:

Remove the F70-A primer with an approved chemical paint remover or make a selective stripping to the P60-A primer. A surface treatment and the P60-A primer application could be done once again in case the substrate is exposed.

Health & Safety



See the product safety data sheets.

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

Packing



The F70-A base is available in 4 kg and 200 kg.

The hardener is available in 2 L and 200 L.

Kits are also available:

- 4 L Kits: 1,2L Base F70-A + 0,6 L Hardener F70-A;
- 45 ml Touch-Up Kits (TUK) containing 30 ml Base F70-A + 15 ml Hardener F70-A;
- 12 ml Mini Touch-Up Kits (TUK) containing 8 ml Base F70-A + 4 ml Hardener F70-A.

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.