

# VARNISH FRS40 SPECIAL

## FIRE RETARDANT FINISHES FOR CABIN INTERIORS

**AkzoNobel**

### Product information



FRS40 Special Varnish is a solvent-based polyurethane varnish three-component for aircraft interiors. It is applied on FRS40 finish to give a pearl effect. It can be recovered with 1500-FR or 1500-HD varnish. For specific application, please refer to the corresponding application process.

### Components



**Base** FRS40 Special Varnish  
**Hardener / Catalyst** FRS  
**Thinner** FRSL

### Specifications



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**  
10-15m<sup>2</sup>/kg (49-74 ft<sup>2</sup>/lbs) for 20µm (0.8mils) dry

**DRY FILM WEIGHT**  
1.2

**VOC**  
550-650 g/L or 4.6-5.4 lbs/gal

**COLOR**  
Pearl effect

**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**  
Depends on the effect

**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



FRS40 Special Varnish is applied on FRS40 finish after 1 hour to 24 hours flash off at 23°C (73°F). FRS40 Special Varnish can be recovered with 1500-FR or 1500-HD varnish after 1 hour to 24 hours flash off at 23°C (73°F). For specific application, please refer to the corresponding application process.

All recommendations mentioned above are given for information.

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### Instructions for use



#### SPRAY APPLICATION

##### MIXING RATIO

**Base**  
**Hardener / Catalyst**  
**Thinner**

##### Mixing ratio by weight

100  
10  
10 à 20

##### 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 a gyroscopic or oscillating mixer before use.

The mixture by weight is recommended.

Mix the base and the hardener until the material is homogeneous. Then add 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 material using a 125-190 µm (5-7.5 mils) filter, depending on pearl particle size.

##### INDUCTION TIME

None

##### Spraying viscosity at 20°C / 68°F

**Dilution rate by weight**  
15%

**AFNOR 4**  
22s ± 5s

**FORD 4**  
20s ± 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.

### Application recommendations



#### CONDITIONS

**Temperature** 15 to 35°C (60 to 95°F)

**Relative humidity** 20 to 80%

#### EQUIPMENT

**Gravity pneumatic spray gun** Nozzle 1.2 to 1.6 mm

#### DRY / WET FILM THICKNESS

10 to 30 µm (0.4 to 1.2 mils) dry depending on the effect

#### NUMBER OF COATS

1 to 3 cross coats with 5 to 10 minutes flash off in between.

Refer to the application process and/or master card to adjust the number of coats.

#### EQUIPMENT CLEANING

Clean the equipment with a suitable cleaning solvent such as FRSL or D770-B thinner.

#### NOTE

Spray with dry and oil-free air.

The use of split nozzle is not recommended, except in case of specific recommendation.

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### Drying times



**Dust free**  
**Dry to handle**  
**Recoatable**  
**Fully Cured**

**23°C (73°F)**  
10-15 minutes  
8 hours  
1-24 hours  
7 days

**40°C (104°F)\***  
N.A  
4 hours  
0-8 hours  
3 days

**60°C (140°F)\***  
N.A  
1 hour  
0-6 hours  
12 days

#### NOTE

Drying times have been determined using tests pieces of a thickness < 2mm for 20µm (0.8mils) of dry film.

\*N.A. : Not applicable

\* : before forced-cure, it is recommended to let dry the FRS40 Special Varnish 45 minutes to 1 hour at 23°C (73°F) for solvent evaporation.

### Defects & corrections



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

### Health & Safety



See the product Safety Data Sheets.  
The SDS are available through our website [www.mapaero.com](http://www.mapaero.com) .

### Packing



The FRS40 Special base is available in 1kg and 5 kg.  
The FRS hardener is available in 0.5kg, 1 kg and 5 kg.  
The FRSL thinner is available in 1L and 5L.

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.