VARNISH FRS40 SPECIAL

Technical Data Sheet

Product Group

Primer Surfacer

Characteristics

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 covered with 1500-FR or 1500-HD varnish. For specific application, please refer to the corresponding application process.

Components

Base	FRS40 Special Varnish
Hardener	FRS
Thinner	FRSL

Specifications

Qualified Product List

Product specifications are constantly changing, to ensure the most accurate information regarding specifications, please check our online qualified product list (QPL) at aerospace.akzonobel.com/products.

Surface Conditions

Surface Preparation/ Cleaning

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.

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

Instruction for Use

Spray Application (Mix Ratio)

	Weight
FRS40 Special Varnish	100 parts
FRS	10 parts
FRSL	10-20 parts

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 stir the base with a gyroscopic or oscillating mixer before use.
- It is recommended to mix by weight
- Mix the base and the hardener until the material is homogeneous. Then add thinner and mix
- The mixing 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

Not Applicable.

Initial Spraying Viscosity (20°C/68°F)

Spraying viscosity at 20°C / 68°F

Dilution rate by weight	AFNOR 4	FORD 4
15%	22s ± 5s	20s ± 5s

Note

Viscosity measurements are provided as guidelines only and are not to be used as quality control parameters. Certified information is provided by certification documentation available on request.

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Pot life (20ºC/68ºF) — 6 hours

Note — Viscosities mentioned above correspond 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.

Dry Film Thickness (DFT) — 10 – 30 µm
0.4 – 1.2 mils
The dry film thickness depends on the effect.

Application Recommendations

Conditions

Temperature:	15 – 35 °C 60 – 95 °F
Relative Humidity:	20 – 80 %

Conditions — VARNISH FRS40 SPECIAL may be applied in conditions outside of the limits shown above. Application must be done carefully to ensure a satisfactory result. Please contact your local AkzoNobel Aerospace Coatings representative to determine the appropriate application techniques when environmental conditions are outside of the recommended range.

Equipment Recommendation — Gravity pneumatic spray gun Nozzle 1.2 to 1.6 mm.

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.

Cleaning of Equipment — Clean the equipment with a suitable cleaning solvent such as FRSL.

Note — Spray with dry and oil-free air.
The use of split nozzle is not recommended, except in case of specific recommendation.

Physical Properties

Drying Times

	23°C/73°F	40°C/104°F	60°C/140°F
Dust Free	10-15 minutes	N.A.	N.A.
Dry to Handle	8 hrs	4 hrs	1 hr
Recoatable	1-24 hrs	0-8 hrs	0-6 hrs
Full Cure	7 days	3 days	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

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

Theoretical Coverage

10-15m²/kg (49-74 ft²/lbs.) for 20µm (0.8mil) dry.
The theoretical consumption value doesn't take into account the transfer efficiency for spray application.

Dry Film Weight

1.2

Volatile Organic Compounds

550-650 g/L or 4.6-5.4 lbs./gal.

Gloss

Depends on the effect.

Color

Pearl effect

Flash Point

FRS40 Special Varnish	> 23°C
FRS	> 23°C
FRSL	> 23°C

Storage

Store the product dry and at a temperature between 5 and 35ºC / 41 and 95ºF per AkzoNobel Aerospace Coatings specification. Store in the original unopened containers. Storage temperature and shelf life may vary per OEM specification requirements. Refer to the container label for specific storage life information.

Shelf life 5 - 35°C (41 - 95°F)

FRS40 Special Varnish	36 months
FRS	24 months
FRSL	48 months

Safety Precautions

Comply with all local safety, disposal and transportation regulations. Check the Material Safety Data Sheet (MSDS) and label of the individual products carefully before using the products. The MSDS's are available on request.

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