

Basis	prototyping casting resin
Resin	MG 321 FR Comp. A (polyol)
Hardener	MG 321 FR Comp. B (isocyanate)
Colour	nature

Applications

- Cladding parts EDP field
- Cladding parts medical sector
- Interior / Exterior of rail vehicle

Properties

- self-extinguishing based on UL 94 V0
- high heat resistance

Processing data

Product		Mixture MG 321 FR / Comp. A+B	Resin MG 321 FR Comp. A (polyol)	Hardener MG 321 FR Comp. B (isocyanate)
Colour		nature	nature	brown
Mixing ratio	p. b. w.		100	50
	volume		100	51
Viscosity at 25°C	mPas	2000 ± 500	3400 ± 500	120 ± 20
Density at 20°C	g / cm ³	1,23 ± 0,03	1,24 ± 0,03	1,22 ± 0,03
Pot life at 20°C	seconds	70 - 80	-	-
Curing time at 50° C	min.	20 - 30	-	-
Post curing	Time in h/ Temperature in °C	4 / 80 + 2 / 120	-	-

Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	64 ± 5
Flexural elongation at break	EN ISO 178	%	7,2 ± 0,5
Flexural modulus	EN ISO 178	MPa	2000 ± 100
Impact resistance (Charpy)	EN ISO 179	kJ/m ²	21 ± 2
Compressive strength	EN ISO 604	MPa	68 ± 5
Heat resistance (HDT)	DIN EN ISO 75 B	°C	120 ± 3
Glass transition temperature TG	DMA	°C	133 ± 3
Shore hardness	DIN ISO 7619-1	Shore D	80 ± 3
coefficient of thermal expansion	internal test / Dilatometer	10 ⁻⁶ K ⁻¹	ca. 118
Flammability	UL 94	coating thickness 4 mm	5 VA
Flammability	UL 94	coating thickness 3 mm	V0

Sales units (packages)

Units	Comp. A	MG 321 FR Comp. A (polyol)	5 kg / 20 kg
	Comp. B	MG 321 FR Comp. B (isocyanate)	10,000 kg

Processing instructions

It is essential to stir component A before use, as the additives tend to sedimentation. Component B has not to be stirred.

The moulding tools should be made of a polyurethane- resp. epoxy resin system, with a high-quality surface.

In order to improve the surface appearance of the component, it is possible:

-to preheat the material to 30°C

-to preheat the moulds to 40 - 50°C

A combination of preheated material and moulds is the optimum.

The wall thicknesses of the components are approx. 4 mm. Ribs or bigger material accumulations can also be produced.

Shrinkage of the parts depends on geometry, wall thickness and temperature. Laboratory values are available on demand.

The components can be demoulded after approx. 20 - 30 min. This can differ accordingly to wall thickness and temperature.

The postcuring has to be made by means of a supporting structure.

In General

ebalta MG 321 FR is processed on a two-component low pressure device.

After grinding with a sand paper, grit 280, the surface can be varnished with a commercial lacquer. For better adhesion we recommend the use of a primer coat. Nitrocellulose lacquers have a better adhesion on polyurethane surfaces than on acryl-lacquer-systems.

As release agent you can use our T 03-01.

MG 321 FR beige

fire behaviour according to UL 94, 3 mm thickness V0

With MG 883 the potlife of MG 321 FR beige can be set up to 120 secs.

MG 321 FR-S beige/ black - Approved according to UL 94 - File E191776 Vol. 1

fire behaviour based on UL 94, 3 mm thickness V0 and 5VA

Storing

Storage at room temperature 18-25 °C.

Opened containers should be closed immediately after use and should be used up as soon as possible.

Shelf life is indicated on the labels.

Safety measure

Please follow the precaution instructions of the Government Safety Organisation of the chemical industry when working with this material. Please follow safety advices !

Waste Disposal

According to arrangement with local authorities cured material can be disposed as domestic or commercial waste.

Non-cured products are waste which is subject to inspection and has to be disposed accordingly.

In case of further questions please do not hesitate to contact our Department for Product Safety.

The instructions and recommendations are given in good faith and are based on long experience and careful tests. Since the conditions of use are beyond our control, and due to versatility of applications and working methods, we can't give any guarantee. All information are non-binding and are no guarantee for special characteristics or properties of the product. Despite information given from **ebalta** the customer has to make his own tests regarding applications and processing. If any special warranty is requested, written agreement on this subject is essential.