

Basis	Prototyping casting resin
Resin	MG 815 Comp. A (Isocyanate)
Hardener	MG 815 Comp. B (Polyole)
Colour	black

Applications

- High quality prototypes, like ABS

Properties

- high temperature resistance
- high impact resistance
- very well castable
- long potlife
- RoHS conform

Processing data

Product		Mixture MG 815 Comp. A + B	Resin MG 815 Comp. A (Isocyanate)	Hardener MG 815 Comp. B (Polyole)
Colour		black	transparent	black
Mixing ratio	p. b. w.		100	70
Viscosity at 25°C	mPas	500 ± 100	300 ± 30	700 ± 100
Density at 20°C	g / cm ³	1,15 ± 0,02	1,15 ± 0,02	1,16 ± 0,02
Pot life 200 g / 20°C	min.	5 - 7	-	-
Curing time at 70° C	min.	40 - 60	-	-
Post curing	Time in h/ Temperature in °C	2 / 100	-	-

Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	100 ± 10
Flexural elongation at break	EN ISO 178	%	8,6 ± 0,5
Flexural modulus	EN ISO 178	MPa	2100 ± 200
Tensile strength	EN ISO 527-1	MPa	72 ± 5
Elongation of tensile strength	EN ISO 527-1	%	13 ± 2
Impact resistance (Charpy)	EN ISO 179	kJ/m ²	75 ± 12
Compressive strength	EN ISO 604	MPa	77 ± 5
Heat resistance (HDT)	DIN EN ISO 75 B	°C	130 ± 3
TG in TMA T _g	Methode TMA	°C	122
Shore hardness	DIN ISO 7619-1	Shore D	80 ± 3
Linear shrinkage	internal	%	approx. 0,3

Sales units (packages)

Units	resin	MG 815 Comp. A (Isocyanate)	1,000 kg / 5,000 kg
	hardener	MG 815 Comp. B (Polyole)	0,700 kg / 3,500 kg

Processing instructions

MG 815 comp. A is an isocyanate.

MG 815 comp B is the adequate polyol.

Since the additives tend to sedimentation, stir up comp.B before use.

Processing parameters: resin temperature 20-30°C / mould temperature 70°C.

Parts can be demoulded after about 45 - 60 min.

After curing MG 815 achieves very good mechanical properties and a temperature resistance (HDT) of about 90°C.

To achieve an optimum temperature resistance (HDT) of 130°C postcuring for 2 hrs. at 100°C is essential.

If required, supporting of the parts during postcuring.

In order to get bubble-free parts, we recommend working under vacuum.

Straight before casting, we recommend a one-time air impact of 60-70 mbar.

Mouldmaterial: we recommend silicone Silastic® **RTV 4234-T4**

In General

This product is a polyurethane casting resin.

Processing preferentially in standard vacuum casting plants.

Hardeners alternatives

MG 815 FR Comp. B - for flame retardant parts

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.