

Basis	<b>RIM Polyurethane Casting resin</b>
Resin	<b>MG 453 Comp. A (polyol)</b>
Hardener	<b>MG 453 Comp. B (isocyanate)</b>
Colour	black

## Applications

- Functional parts automotive field
- Functional parts EDP field
- Prototyping parts EDP field
- Prototypes in the automotive field
- Cladding parts automotive field
- Cladding parts EDP field

## Properties

- high heat resistance
- excellent flow properties
- medium E-modulus
- good impact strength

## Processing data

Product		Mixture MG 453 / Comp. A+B	Resin MG 453 Comp. A (polyol)	Hardener MG 453 Comp. B (isocyanate)
Colour		black	black	brown
<b>Mixing ratio</b>	<b>p. b. w.</b>		<b>100</b>	<b>75</b>
	<b>volume</b>		100	66
Viscosity at 25°C	mPas	non applic.	1500 ± 200	120 ± 20
Density at 20°C	g / cm <sup>3</sup>	1,19 ± 0,02	1,07 ± 0,02	1,22 ± 0,02
Pot life at 20°C	seconds	55 - 60	-	-
Curing time at RT	min.	10 - 15	-	-
Post curing	Time in h/ Temperature in °C	4 / 70 4 / 120	-	-

## Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	65 ± 1
Flexural elongation at break	EN ISO 178	%	7,4 ± 0,2
Flexural modulus	EN ISO 178	MPa	1640 ± 50
Impact resistance (Charpy)	EN ISO 179	kJ/m <sup>2</sup>	38 ± 8
Heat resistance (HDT)	DIN EN ISO 75 B	°C	102 ± 5
Glass transition temperature TG	DMA	°C	124 ± 5
Shore hardness	DIN ISO 7619-1	Shore D	80 ± 3

## Sales units (packages)

Units	Comp. A	MG 453 Comp. A (polyol)	20,000 kg
	Comp. B	MG 453 Comp. B (isocyanate)	15,000 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 (but no must to do!):

- 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. 5 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. 10 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 453 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.

Release agent – please see category release agent

## 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.