

Basis **RIM polyurethane casting system**
 Resin **MG 425 Comp. A (polyol)**
 Hardener **PUR 19 Comp. B (isocyanate)**

Colour black
 Further colours beige

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

- medium E-modulus
- high impact resistance
- excellent flow properties

Processing data

| Product | | Mixture MG 425 / PUR 19 | Resin MG 425 Comp. A (polyol) | Hardener PUR 19 Comp. B (isocyanate) |
|-------------------|------------------------------------|----------------------------|----------------------------------|--|
| Colour | | black | black | brown |
| Mixing ratio | p. b. w. | | 100 | 90 |
| | volume | | 100 | 77 |
| Viscosity at 25°C | mPas | 750 ± 100 | 900 ± 100 | 475 ± 100 |
| Density at 20°C | g / cm ³ | 1,15 ± 0,02 | 1,04 ± 0,02 | 1,22 ± 0,02 |
| Pot life at 20°C | seconds | 50 - 60 | - | - |
| Curing time at RT | min. | 20 - 30 | - | - |
| Post curing | Time in h/ Temperature in °C | 4 - 5 / 60 | - | - |

Physical data

| Properties | Inspect. requirem. | Unit | Value |
|---------------------------------|--------------------|-------------------|------------|
| Flexural strength | EN ISO 178 | MPa | 62 ± 6 |
| Flexural elongation at break | EN ISO 178 | % | 6,8 ± 0,3 |
| Flexural modulus | EN ISO 178 | MPa | 1550 ± 150 |
| Tensile strength | EN ISO 527-1 | MPa | - |
| Impact resistance (Charpy) | EN ISO 179 | kJ/m ² | 80 ± 12 |
| Heat resistance (HDT) | DIN EN ISO 75 B | °C | 73 ± 2 |
| Glass transition temperature TG | method DSC | °C | ca. 80 |
| Shore hardness | DIN ISO 7619-1 | Shore D | 75 ± 2 |

Sales units (packages)

| | | | |
|-------|---------|--------------------------------|----------------------|
| Units | Comp. A | MG 425 Comp. A (polyol) | 5,000 kg / 20,000 kg |
| | Comp. B | PUR 19 Comp. B (isocyanate) | 5,000 kg / 20,000 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 425 is processed on a two-component low pressure device.

The systems MG 400 / MG 425 / MG 475 are cured with the hardener PUR 19.

By mixing MG 425 with MG 400 the E-modulus can vary between 630 – 1550 MPa.

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 acrylic-lacquer-systems.

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: see 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.