

Basis	Low pressure RIM system
Resin	VP MG 331 FR Comp. A
Hardener	VP MG 331 FR Comp. B
Colour	black

## Applications

- Production parts “listed” and “non-listed”
- Interior / exterior of rail vehicle
- Interior/exterior equipment of buses
- Interior/exterior equipment of cable cars

## Properties

- fire protection in rail vehicles acc. DIN EN 45545-2
- Classification R22 HL 1, HL 2, HL 3
- Classification R23 HL 1, HL 2, HL 3
- high heat resistance HDT 120 °C

## Processing data

Product		Mixture VP MG 331 FR / Komp. A+B	Resin VP MG 331 FR Comp. A	Hardener VP MG 331 FR Comp. B
Colour		black	black	brown
Mixing ratio	p. b. w.		100	45
	volume		100	49
Viscosity at 25°C	mPas	-	7700 ± 500	120 ± 20
Density at 20°C	g / cm <sup>3</sup>	1,3 ± 0,03	1,33 ± 0,03	1,23 ± 0,03
Pot life at 20°C	seconds	55 - 60	-	-
Curing time at 50° C	min.	10 - 15	-	-
Post curing	Time in h/ Temperature in °C	10 / 100	-	-

## Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	75 ± 5
Flexural modulus	EN ISO 178	MPa	2710 ± 100
Flexural elongation at break	EN ISO 178	%	3,9 ± 0,5
Impact resistance (Charpy)	EN ISO 179	kJ/m <sup>2</sup>	14 ± 2
Compressive strength	EN ISO 604	MPa	66 ± 5
Shore hardness	DIN ISO 7619-1	Shore D	82 ± 3
Heat resistance (HDT)	DIN EN ISO 75 B	°C	120 ± 3

## Sales units (packages)

Units	Comp. A	VP MG 331 FR Comp. A	5,000 kg / 20,000 kg
	Comp. B	VP MG 331 FR Comp. B	2,250 kg / 9,000 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°C - 50°C

A combination of preheated material and moulds is the optimum.

The wall thicknesses of the components are approx. 10 mm. Ribs or bigger material accumulations up to 15 mm 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 - 15 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** VP MG 331 FR is processed on a two-component low pressure device.

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

VP products are trial products.  
Technical data might slightly change later.

## 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.