

Basis	Impact resistant casting resin
Resin	GM 978
Hardener	D
Colour	black
Further colours	white

Applications

- Foundry patterns
- Core boxes
- Prototypes with thermoplastic like properties

Properties

- very shock resistant
- well castable
- castable up to 8 mm

Processing data

Product		Mixture GM 978 / D	Resin GM 978	Hardener D
Colour		black	black	colourless
Mixing ratio	p. b. w.		100	17
Viscosity at 25°C	mPas	2000 ± 500	7000 ± 1000	5 ± 2
Density at 20°C	g / cm ³	1,06 ± 0,02	1,15 ± 0,02	0,87 ± 0,02
Pot life 200 g / 20°C	min.	35 - 45	-	-
Curing time at RT	hrs.	10 - 12	-	-

Physical data

Properties	Inspect. requirem.	Unit	Value
Flexural strength	EN ISO 178	MPa	40 ± 5
Flexural strength at breakage	EN ISO 178	%	6,9 ± 0,2
Flexural modulus	EN ISO 178	MPa	1250 ± 100
Tensile strength	EN ISO 527	MPa	-
Tensile strength / test piece type 2	ISO 37	MPa	-
Tensile modulus	EN ISO 527	MPa	-
Elongation at break / test piece type 2	ISO 37	%	-
Impact resistance (Charpy)	EN ISO 179	kJ/m ²	70 ± 7
Compressive strength	EN ISO 604	MPa	34 ± 3
Heat resistance (HDT)	DIN EN ISO 75 B	°C	60 ± 2
Glass transition temperature TG	methode DSC	°C	-
Shore hardness	DIN 53505	Shore D	77 ± 2
Coefficient of linear expansion	DIN 53752	10 ⁻⁶ K ⁻¹	-
Linear shrinkage	internal	%	-
Tear resistance arch shaped test piece with incision 1 mm	DIN ISO 34-1	kN/m	-
Tear resistance arch shaped test piece without incision 1 mm	DIN ISO 34-1	kN/m	-
Elongation	EN ISO 527	%	-

Sales units (packages)

Packing size	B-Pack	GM 978 / D	Resin 6 x 0,700 kg / Hardener 6 x 0,120 kg = 4,920 kg
Units	Resin	GM 978	20,000 kg
	Hardener	D	4,000 kg

Processing instructions

Material- and processing temperature: between 18 - 25 °C.

Close containers after use.

Seal porous mould surfaces first (**ebalta** mould sealer).

For optimum mould releasing we recommend a special release agent (like T1-1), which can be applied easily with a brush or be sprayed. Releasing of the mould 2-3 times, evaporate for about 20 min. after each releasing.

Mixing ratio resin/hardener according to instructions.

Stirring rods etc. with residual resin can be easily cleaned with **ebalta** cleaning agent.

In General

GM 978/D is a modified 2-components epoxy resin system, which cures at room temperature.

In cured state the mechanical properties and strengths of moulded parts are like those of injection moulded parts. For this reason inspection samples and experimental moulds are cast, which are made of injection moulded parts later. With GM 978/D parts of wall thicknesses of 5 – 8 mm are cast in simple resin moulds. Both components can be stirred bubble-free manually with a round stirring rod or bigger quantities with a mechanical mixer. Mix both components very carefully and intensively.

Thermal treatment for 2 – 3 hrs at 40 °C after geltime leads to fast demoulding of the casting parts.

GM 978/D is well castable. After curing at room temperature, the parts are very impact resistant.

With the slower GL-hardener wall thicknesses of 15 – 20 mm can be cast.

Parts made of GM 978 can be used within a range of –25 °C to + 55 °C.

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.

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