

Stobicast M 612.02



General product information

2-component polyurethane casting resin with excellent electrical properties. The formulation does not contain any abrasive fillers. The casting is especially suitable for casting bushings, bushing current transformers, construction parts for switch installations etc.

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Typical properties at 20°C

	Polyol	Polyisocyanate	Mixture
Density [g/cm ³] DIN 53217/1+2	1.68	1.23	1.52
Viscosity [mPa·s] DIN 53019/1	15000	125	2000
Mixing ratio by weight	100	40	
Flashpoint	>200°C	>200°C	

Potlife (DIN 16945/1) from 3 till 60 minutes at 20°C possible

Colour brown

Curing profile

The curing time depends on the pot life of the system, the material- and mould temperature and will take approx. 10 - 15 hours at 20°C. To reach optimal physical and electrical properties it is suitable to cure the casting resin at 125°C for minimum 6 hours.

Typical physical and electrical properties of tempered casting resin
(6 hours at 125°C)

Physical properties

Shore hardness	85 D	DIN EN ISO 868
Flexural strength	100 N/mm ²	DIN 53452
Deflection at break	3 mm	DIN 53452
E-modulus	5800 N/mm ²	DIN 53452
Tensile strength	75 N/mm ²	DIN 53455
Impact strength	18 kJ/m ²	DIN 53453
Elongation at break	1,35 %	DIN 53455
Glass transition temperature	103°C	DSC
HDT - Martens value	93°C	DIN 53458
Temperature index	128°C	IEC 216
Linear thermal expansion coefficient	45 10 ⁻⁶ K ⁻¹	DIN 53752
Thermal conductivity	0.50 WK ⁻¹ m ⁻¹	DIN 52612

Electrical properties

Dielectric strength ED	36 KV/mm	IEC 243
Surface resistance ROC	10 ¹⁵ Ω	IEC 93
Spec. current flow	10 ¹⁵ Ω cm	IEC 93
Tracking resistance	CTI>600 V	IEC 112
Electrolytic corrosion	1.2 A	VDE 0303/6

Temperature	Dissipation factor at 50 Hz (VDE 0303/4)	Dielectric constant at 50 cps (IEC 250)
23°C	tan δ = 0.010	ε _r = 4.6
80°C	tan δ = 0.009	ε _r = 4.9

Processing Conditions

The processing is done by preference with a two component metering and mixing machine. These machines enable a working with short pot lives and demoulding cycles. The parts to be cast should be clean, dry and free from grease.

Precaution

Material safety data sheet should be read very carefully before use.

Packaging

200 L drums. Others size on request.

Storage life

Both components must be protected against humidity. Do not store at temperature below + 5 °C. 15 - 25°C is the most favourable storage temperature. Original closed drums can be stored for at least 6 months at ambient temperature. After a long storage period, the resin component should be stirred well before using.

Notice

The information herein is based on our present experience and is believed to be correct. Notice of legal requirements and existing patent rights has to be taken.

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