

Stobicast® L 653.00

General product information

This is a UV-light stable, transparent and flexible two component polyurethane casting resin. This casting was especially developed for the manufacture of small parts in the electrical industry with a low viscosity in mixture.

The casting does not contain any halogen- or heavy metal components. It complies with the **RoHS** (2002/95/EG) and electronic waste regulation **WEEE** (2002/96/EG directive of the EU).

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Typical properties at 20°C

	Polyol	Polyisocyanate	Mixture
Density [g/cm ³] DIN 53217/1+2	1.02	1.14	1.07
Viscosity [mPa·s] DIN 53019/1	700	170	400
Mixing ratio by weight	100	50	

Pot life (DIN 16945/1)

from 1 till 50 minutes at 20°C possible

Colour

clear, transparent

Curing profile

The curing time depends at room temperature on the pot life, cast quantity, resin- and mould temperature. Heat application will accelerate the curing (e. g. 4 h at 60°C).

Important: please stir both components very carefully to avoid bubbles in the mixture.

Typical physical and electrical properties of tempered casting resin

(48 hours at room temperature)

Physical properties

Shore hardness	65 A	DIN EN ISO 868
Tensile strength	2,3 N/mm ²	DIN 53455
Elongation at break	75 %	
Impact strength	20 kJ/m ²	DIN 53453
Thermal conductivity	0,15 WK ⁻¹ m ⁻¹	DIN 52612
Temperatur indice	128°C	IEC 216
Glass transition temperature	-20°C	DSC
Water adsorption	86 mg in 24 h (0.84%) 165 mg in 96 h (1.68%)	DIN 53495
Linear thermal expansion coefficient	140 10 ⁻⁶ K ⁻¹	DIN 53752

Electrical properties

Dielectrical strength ED	28 KV/mm	IEC 243
Surface resistivity ROC	10 ¹³ Ω	IEC 93
Spec. current flow	10 ¹³ Ω cm	IEC 93
Tracking resistivity	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 Hz (IEC 250)
23°C	tan δ = 0,09	ε _r = 5,9
50 °C	tan δ = 0,12	ε _r = 7,1
80°C	tan δ = 0,12	ε _r = 8,1

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.

Important: in the case of open drums the polyol component will collect humidity from the air; the moisture could be the reason of the formation of bubbles in the final casting. Open drums should be worked up as soon as possible.

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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All provided informations concerning our products, including but not limited to, any recommendations and advice relating to the application and use of our products, is given in good faith based on our current experience and knowledge of its products when properly stored, handled and applied under normal conditions in accordance with our instructions. In practice, the differences in materials, substrates, storage and handling conditions, actual site conditions and other factors outside of our control are such that we assumes no liability for the provision of such information, advice, recommendations or instructions related to its products, nor shall any legal relationship be created by or arise from the provision of such information, advice, recommendations or instructions related to its products. The user of our product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with the full application of the product(s).