



Stobicast® L 781.68



General product information

Elastic 2-component polyurethane casting compound with excellent electrical and mechanical properties. Due to its high insulation strength, flexibility and good resistance to water and other chemicals it is well suited for the insulation of low voltage components as transformers, EMI filters, electronics, sensors and others.

The casting compound is **UL 94 V-0** recognized as self-extinguishing having an **RTI** of 130 °C (UL file 302173). Also, it fulfils the requirements of the Household Appliances Standard IEC 60 335 having **GWFI** of 850 °C and **GWIT** of 850 °C.

It complies with the **RoHS** (2002/95/EG) and electronic waste regulations (2002/96/EG **WEEE** directive of the EU).

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Typical properties at 25°C

	Polyol	Polyisocyanate	Mixture
Density [g/cm ³] DIN 53217/1+2	1,48	1,22	1,42
Viscosity [mPa·s] DIN 53019/1	2250	100	700
Mixing ratio by weight	100	16,0	

Pot life (DIN 16945/1) from 3 to 90 minutes at 20°C possible

Colour black

Curing profile

The curing time at room temperature depends on the pot life, cast quantity, resin- and mould temperature. Heat application will accelerate the curing (e. g. 4 h at 100°C).

Typical physical and electrical properties of tempered casting resin

(16 hours at 80°C)

Shore hardness	A 70	DIN EN ISO 868
Tensile strength	4 N/mm ²	DIN 53455
Elongation at break	130 %	
Notched impact strength	14 kJ/m ²	DIN 53453
Impact strength	33 kJ/m ²	DIN 53453
Flammability (UL file E 302173)	V 0 V 2	UL 94 (3 mm) UL 94 (1,5 mm)
Glow wire ignition temperature (GWIT)	850 °C / 3,0	IEC 60695-2-13
Glow wire flammability index (GWFI)	850 °C / 3,0	IEC 60695-2-12
Glass transition temperature	0°C	DSC
Relative temperature index (UL file E 302173)	130 °C	UL 746 B
Water absorption	36 mg in 24 h 63 mg in 96 h	DIN 53495
Heat conductivity	0,7 W/Km	DIN 52612
Coefficient of linear expansion	125 · 10 ⁻⁶ K ⁻¹	DIN 53752
Dielectric strength	26 kV/mm	IEC 243
Surface resistance	10 ¹⁴ Ω	IEC 93
Volume resistance at 20 °C	10 ¹⁴ Ω cm	IEC 93
Tracking resistance	CTI>600 V	IEC 112
Electrolytic corrosion	A / 1.2	VDE 0307

Dielectric properties at 50 Hz (IEC 250)

Temperature	Dissipation factor	Dielectric constant
23 °C	tan δ = 0,055	ε _r = 4,2
50 °C	tan δ = 0,075	ε _r = 5,3
80 °C	tan δ = 0,080	ε _r = 7,1

Processing recommendations

The polyol component has to be stirred and homogenized thoroughly prior to use. Processing is done by preference with a two component metering and mixing machine. These machines enable a working with short pot life's and demoulding cycles.

Pre-treatment

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 sizes on request.

Storage

Both components must be protected against humidity. Do not store at temperature below + 5 °C. 15 - 25°C is the most favourable storage temperature

Shelf life

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 use.

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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¹ 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).