



Stobicast® L 780.**



General product information

Hard-flexible 2-component polyurethane casting compound with excellent electrical and mechanical properties. Due to its high impact strength and good resistance to water, transformer oil, gasoline and other chemicals it is well suited for the insulation of low voltage components as transformers, coils, electronics switches, capacitors and others.

The casting compound is **UL 94 V-0** recognized as self-extinguishing having an **RTI** of 130 °C (UL file 302173, mech. + electr.). Also, it fulfils the requirements of the Household Appliances Standard IEC 60 335 having **GWFI** of 960°C and **GWIT** of 850°C and the firetest to railway components **NF F 16-101** in the F1 / I3 classification.

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

	Polyole	Polyisocyanate	Mixture
Density [g/cm³] DIN 53217/1+2	1.58	1.22	1.50
Viscosity [mPa·s] DIN 53019/1	6000	20	900
Mixing ratio by weight	100	20	

Potlife (DIN 16945/1)

from 3 till 120 minutes at 20°C possible

Colour

L 780.01 black – ~.00 unpigmented - ~.16 white
~.05 grey – other on request

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 100°C).

Typical properties of tempered casting resin

(16 hours at 80 °C)

Mechanical Properties		
Shore Hardness	65 D	DIN EN ISO 868
Tensile Strength	15 N/mm ²	DIN 53455
Flexural Strength	25 N/mm ²	DIN 53452
Water absorption 30 min @ 100°C / 24 h @ 25°C	0.35% / 0.14%	DIN 53472

Thermomechanical Properties		
Linear Thermal Expansion Coefficient	75 10 ⁻⁶ K ⁻¹	DIN 53752
Thermal Conductivity	0.7 W K ⁻¹ m ⁻¹	DIN 52612
Glass Transition Temperature	40°C	DSC
Temperature range of Use (for typical Application)	-40°C / +130°C	
Firetest to Railway Components	HL 3	EN 45545

Electrical Properties		
Dielectrical Strength	30 kV/mm	IEC 243
Surface Resistivity	10 ¹⁴ Ω	IEC 93
Spec. Current Flow at 20 °C	10 ¹⁴ Ω cm	IEC 93
Electrolytic Corrosion	A / 1.2	VDE 0303/6
Dissipationfactor tan δ · 10 ⁻² 50 Hz (23/50/80°C)	4.4 / 8.8 / 12.,9	IEC 250
Dielectric Constant 50 Hz (23/50/80°C)	5.5 / 6.2 / 6.7	IEC 250

UL Approval (UL File E 302173)		
Relative Temperature Index RTI (mechanical. + electric.)	130°C	UL 746 B
Flammability	V-0 @ 3 mm	UL 94
Glow Wire Ignition Temperature (GWIT)	850 °C @ 3 mm	IEC 60695-2-13
Glow Wire Flammability Index (GWFI)	960 °C @ 3 mm	IEC 60695-2-12
Hot Wire Ignition HWI	1	UL 746 A
Hot Arc Ignition HAI	0	UL 746 A
Comparative Tracking Index CTI	0 / CTI 600 M	UL 746 A / IEC 112

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 casted 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.

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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 assume 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).