



Stobicast® L 781.36

General product information

Elastic 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 and others.

The casting compound is **UL 94 V-0** recognized as self-extinguishing without any halogen or antimony containing flame retardants. It complies with the **RoHS** (2002/95/EG) and electronic waste regulations (2002/96/EG **WEEE** directive of the EU).

Stobicast® L 781.36 has been formulated as flame retardant according to the requirements of the Household Appliances standard IEC 60 335 having **GWFI** of 960 °C (glow wire flammability index IEC 60695-2-12) and **GWIT** of 850 °C (glow wire ignition temperature IEC 60695-2-13).

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Typical properties at 25°C

	Polyole	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	

Potlife (DIN 16945/1)

from 3 till 90 minutes at 20°C possible

Colour

unpigmented-colourless

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	70 A	DIN EN ISO 868
Tensile Strength	4 N/mm ²	DIN 53455
Elongation at break	130 %	
Impact Strength	33 kJ/m ²	DIN 53453
Water absorption (Disc 50x50x4 mm)	36 mg in 24 h 63 mg in 96 h	DIN 53495

Thermomechanical Properties		
Linear Thermal Expansion Coefficient	125 10 ⁻⁶ K ⁻¹	DIN 53752
Thermal Conductivity	0.7 W K ⁻¹ m ⁻¹	DIN 52612
Glass Transition Temperature	0°C	DSC
Temperature range of Use (for typical Application)	-40°C / +130°C	

Electrical Properties		
Dielectrical Strength	26 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
Dissipation factor tan δ · 10 ⁻² 50 Hz (23/50/80°C)	5.5 / 7.5 / 8.0	IEC 250
Dielectric Constant 50 Hz (23/50/80°C)	4.2 / 5.3 / 7.1	IEC 250

UL Approval (UL File E 302173)		
Relative Temperature Index RTI (mechanical)	130°C	UL 746 B
Flammability	V-0 @ 3 mm V-2 @ 1,5 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	0	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 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.

Edition 12/2012¹

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).