

Stobicast[®] L 781.**



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.** has been formulated as flame retardant according to the requirements of the Household Appliances standard IEC 60 335 having **GWFI** of 850 $^{\circ}$ (glow wire flammability index IEC 60695-2-12) and **GWIT** of 775 $^{\circ}$ (glow wire ignition temperature IEC 60695-2-13).

Stockmeier Urethanes GmbH & Co. KG

Im Hengstfeld 15 32657 Lemgo Germany

T +49-5261 / 66068-0 F +49-5261 / 66068-29

urethanes.ger@stockmeier.com

www.stockmeier-urethanes.com

Typical properties at 25℃

	Polyol	Polyisocyanate	Mixture
Density [g/cm ³] DIN 53217/1+2	1,46	1,22	1,42
Viscosity [mPa⋅s] DIN 53019/1	3000	20	800
Mixing ratio by weight	100	16,7	

Pot life (DIN 16945/1)

from 3 to 120 minutes at 20°C possible

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).

Colours of L 781.**

code	colour	RAL-type
.00	colourless	-
.01	black	approx. RAL 9005
.05	silver grey	approx. RAL 7001
.14	gentian blue	approx. RAL 5010
.16	white	approx. RAL 1013

Typical physical and electrical properties of tempered casting resin (16 hours at 80 °C)

Shore hardness	A 87	DIN EN ISO 868
Tensile strength	5 N/mm ²	DIN 53455
Elongation at break	100 %	
Notched impact strength	13 kJ/m ²	DIN 53453
Impact strength	40 kJ/m ²	DIN 53453
Flammability (UL file E 302173)	V 0	UL 94 (3 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	3 0	DSC
Insulation class	B (130℃)	IEC 85
Relative temperature index (RTI)	130 °C	UL 746 B
Water absorption	36 mg in 24 h 65 mg in 96 h	DIN 53495
Heat conductivity	0,7 W/Km	DIN 52612
Coefficient of linear expansion	120 · 10 ⁻⁶ K ⁻¹	DIN 53752
Dielectric strength	24 kV/mm	IEC 243
Surface resistance	$10^{14} \mathbf{\Omega}$	IEC 93
Volume resistance at 20 ℃	$10^{14} \mathbf{\Omega} \mathrm{cm}$	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 = 0,050	$\epsilon_r = 4,3$
50 °C	tan δ = 0,070	$\epsilon_r = 5,4$
30 °C	tan δ = 0,080	$\epsilon_r = 7,0$

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 stor age 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.

<u>Notice</u>

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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