

PUre Flame Resistance ST 51/30

- 2-components polyurethane casting resin
- solvent-free system
- semi-hard curing degree
- no halogenated flame-retardants
- self-extinguishing properties
- high thermal conductivity
- electrically insulating
- excellent adhesive and shock-resistant properties
- ideal for electronic components, e.g. sensors, lithium-ion batteries and transformers

- ✓ The casting resin is used with **PUre Hardener 1073**
- ✓ Product name explanations:
 - PUre Flame Resistance = product line
 - ST 51 = product name
 - /30 = potlife configuration in min

Product specification:

Operating temperature:	-40°C up to +130°C	
Flammability classification:	V-0 in 4,0 mm	
Mixing ratio:	100 parts PUre Flame Resistance ST 51/30 15 parts PUre Hardener 1073	
Viscosity (22°C):	resin: PUre Flame Resistance ST 51/30	2.800 - 3.800 mPa*s
	hardener: PUre Hardener 1073	15 - 25 mPa*s
	mixing viscosity	900 - 1.300 mPa*s
Density (22°C):	resin: PUre Flame Resistance ST 51/30	1,48 - 1,53 g/cm ³
	hardener: PUre Hardener 1073	1,20 - 1,25 g/cm ³
Colour:	black, blue, or as required	
Potlife:	25 - 35 minutes	
Curing time (22°C):	16 - 30 hours	
Final hardness	10 - 14 days	

Physical properties:

Shore-Hardness:	A 65 - 75	ISO 868, DIN 53505
Thermal conductivity:	0,5 W/m*K	DIN EN ISO 22007
Glass transition temperature:	-29,4°C	TMA
Coefficient of expansion:	96,9 ppm/K 188,9 ppm/K	< Tg, TMA > Tg, TMA
Shrinkage after curing:	<1 %	
Water absorption:	0,3 % (30 days at 23°C)	
Insulation class:	B	IEC 60085
E-Modulus:	23 MPa	DIN EN ISO 527-2
Tensile strength:	3,8 MPa	
Elongation at break:	36 %	

Electrical properties:

Dielectrical strength:	25 kV/mm	IEC 60243-1, VDE 0303, TI.2
Volume resistance:	10 ¹⁵ Ω*cm (23°C/ 50% r.F.)	IEC 60243-1, VDE0303, TI.30
Surface resistance:	10 ¹⁶ Ω (23°C/ 50% r.F.)	
Dielectric constant (ε _r):		
at 50 Hz, 23 °C	5,3	IEC 60250,
at 1 KHz, 23 °C	4,8	VDE 0303, TI.4
at 1 MHz, 23 °C	4,7	
Dielectric dissipation factor:		
(tan δ)		IEC 60250,
at 50 Hz, 23 °C	0,08	VDE 0303, TI.4
Coparative Tracking Index:	CTI 600	IEC 60112, VDE 0303, TI.1

Shelf life:	6 months in sealed original containers when stored in dry conditions (15°C to 25°C).
Packaging:	Resin and hardener are offered in separate packaging units.
RoHS:	We hereby certify that all our products are unexceptional RoHS conform, according to the EU directive 2011/65/EG (RoHS2) and the amendment of Directive 2015/863.