

## PUre Flame Resistance TC 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
  - TC 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 TC 51/30 12 parts PUre Hardener 1073	
Viscosity (22°C): (Bei 10 U/min)	resin: PUre Flame Resistance TC 51/30 hardener: PUre Hardener 1073 mixing viscosity	4.500 - 5.800 mPa*s 15 - 25 mPa*s 1.400 - 2.400 mPa*s
Density (22°C):	resin: PUre Flame Resistance TC 51/30 hardener: PUre Hardener 1073	1,40 - 1,50 g/cm <sup>3</sup> 1,20 - 1,25 g/cm <sup>3</sup>
Colour:	nature, black or as required	
Potlife:	25 - 40 minutes	
Curing time (22°C):	16 - 30 hours	
Final hardness	10 - 14 days	

**Physical properties:**

Shore-Hardness:	A 40 - 50	ISO 868, DIN 53505
Thermal conductivity:	1,0 W/m*K	DIN EN ISO 22007
Glass transition temperature:	-23,1°C	TMA
Coefficient of expansion:	141,5 ppm/K	< Tg, TMA
	174,4 ppm/K	> Tg, TMA
Shrinkage after curing:	<1 %	
Water absorption:	0,2 % (30 days at 23°C)	
Insulation class:	B	IEC 60085

**Electrical properties:**

Dielectrical strength:	24 kV/mm	IEC 60243-1, VDE 0303, TI.2
Volume resistance:	10 <sup>15</sup> Ω*cm (23°C/ 50% r.F.)	IEC 60243-1, VDE0303, TI.30
Surface resistance:	10 <sup>16</sup> Ω (23°C/ 50% r.F.)	IEC 60243-1, VDE0303, TI.30
Dielectric constant (ε <sub>r</sub> ):		
at 50 Hz, 23 °C	5,2	IEC 60250,
at 1 KHz, 23 °C	4,6	VDE 0303, TI.4
at 1 MHz, 23 °C	4,3	
Dielectric dissipation factor: (tan δ)		IEC 60250,
at 50 Hz, 23 °C	0,12	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.