

## Insulation / Flame Resistance

### Resin 8616/10 (ex RM 13) + Hardener 8973 (ex 1073)

- 2-components polyurethane casting resin
- solvent-free system
- 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

#### Product specification:

Mixing ratio (weight):	Resin 8616	100 parts
	Hardener 1073	43 parts
Viscosity (22°C):	Resin 8616	3'000 – 4'500 mPa·s
	Hardener 1073	15 – 35 mPa·s
	Mixing viscosity	250 – 350 mPa·s
Density (22°C):	Resin 8616	1.45 – 1.52 g/cm <sup>3</sup>
	Hardener 1073	1.20 – 1.25 g/cm <sup>3</sup>
Colour:	Natur (beige)	
Pot life:	7 – 12 minutes	
	The curing time depends on the thickness of the layer, the casting volume and the temperature.	
Curing time (22°C):	8 – 18 hours	
Final hardness	10 – 14 days	

**Physical properties:**

Shore-Hardness:	D 85 – 90	ISO 868, DIN 53505
Thermal conductivity:	0.7 W/(m·K)	DIN EN ISO 22007
Glass transition temperature:	56.0 °C	TMA
Coefficient of expansion:	47.1 ppm/K 143.4 ppm/K	< Tg, TMA > Tg, TMA
Shrinkage after curing:	<1 %	
Water absorption:	0.3 % (30 days at 23°C)	
Insulation class:	B	IEC 60085
Operating temperature:	-40°C up to +145°C	
Flammability classification:	V-0 in 3.0 mm	

**Electrical properties:**

Dielectrical strength:	31 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	5.8	IEC 60250,
at 1 KHz, 23 °C	5.1	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.

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