

Insulation / Flame Resistance

Resin 8616/10S (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 8616/10S	100 parts
	Hardener 1073	43 parts
Viscosity at 22°C: (DIN 53019-1; Plate/Plate; 10 rpm)	Resin 8616/10S	3'000 – 4'500 mPa·s
	Hardener 1073	15 – 35 mPa·s
	Mixing viscosity	250 – 350 mPa·s
Density at 22°C: (DIN EN ISO 2811-1)	Resin 8616/10S	1.45 – 1.52 g/cm³
	Hardener 1073	1.20 – 1.25 g/cm³
Colour:		Black
Pot life: (TriPLICATION of the initial viscosity)		7 – 12 minutes
Curing time at 22°C:		8 – 18 hours
Final hardness at 22°C		10 – 14 days

Physical properties:

Shore-Hardness: (DIN EN ISO 868)		D 85 – 90
Thermal conductivity: (TMA; ISO 11359)		0.7 W/(m·K)
Glass transition temperature: (TMA; ISO 11359)		56.0 °C
Coefficient of expansion: (TMA; ISO 11359)	< Tg > Tg	47.1 ppm/K 143.4 ppm/K
Shrinkage after curing:		<1 %
Water absorption: (30 days at 23°C)		0.3 %
Operating temperature:		-40°C up to +145°C
Flammability classification: (UL 94)		V-0 in 3.0 mm

Electrical properties:

Dielectric strength: (IEC 60243-1, VDE 0303, TI.2)		31 kV/mm
Volume resistance: (IEC 60243-1, VDE 0303, TI.30)	23°C/ 50% r.H.	10 ¹⁵ Ω·cm
Surface resistance: (IEC 60243-1, VDE 0303, TI.30)	23°C/ 50% r.H.	10 ¹⁶ Ω
Dielectric constant (ε _r) at 23°C: (IEC 60250, VDE 0303, TI.4)	at 50 Hz at 1 KHz at 1 MHz	5.8 5.1 4.3
Dielectric dissipation factor (tan δ): (IEC 60250, VDE 0303, TI.4)	at 50 Hz, 23 °C	0.12
Comparative Tracking Index (CTI): (IEC 60112, VDE 0303, TI.1)		CTI 600

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.

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