

Insulation / Flame Resistance

Resin 8605/30 (ex ST 51) + Hardener 8973 (ex 1073)

- 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

Product specification:

Mixing ratio (weight):	Resin 8605	100 parts
	Hardener 8973	15 parts
Viscosity (22°C):	Resin 8605	2'800 – 3'800 mPa·s
	Hardener 8973	15 – 25 mPa·s
	mixing viscosity	900 – 1'300 mPa·s
Density (22°C):	Resin 8605	1.48 – 1.53 g/cm ³
	Hardener 8973	1.20 – 1.25 g/cm ³
Colour:	Nature (beige)	
Pot life:	25 – 35 minutes	
	The curing time depends on the thickness of the layer, the casting volume and the temperature.	
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
Operating temperature:	-40°C up to +130°C	
Flammability classification:	V-0 in 4.0 mm	

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.)	IEC 60243-1, VDE0303, TI.30
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.

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