

## Insulation / Flame protection

### Resin 8612/20 (ex ST13) + Hardener 8901 (ex H1001)

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

#### Product specification:

Mixing ratio (weight):	Resin 8612	100 parts
	Hardener 8901	20 parts
Viscosity (22°C):	Resin 8612	3'500 – 4'500 mPa·s
	Hardener 8901	160 – 240 mPa·s
	Mixing viscosity	1'200 – 1'800 mPa·s
Density (22°C):	Resin 8612	1.60 – 1.65 g/cm <sup>3</sup>
	Hardener 8901	1.20 – 1.25 g/cm <sup>3</sup>
Colour:	Nature (beige)	
Pot life:	15 – 25 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:	D 50 – 60	ISO 868, DIN 53505
Thermal conductivity:	0.6 W/(m·K)	DIN EN ISO 22007
Glass transition temperature:	12.0°C	TMA
Coefficient of expansion:	63.9 ppm/K 155.8 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-Moduls:	231 MPa	DIN EN ISO 527-2
Tensile strength:	14.2 N/mm <sup>2</sup>	
Elongation at break:	19 %	
Operating temperature:	-40°C up to +130°C	
Flammability classification:	V-0 in 1.5 mm	

**Electrical properties:**

Dielectrical strength:	30 kV/mm	IEC 60243-1, VDE 0303, TI.2
Volume resistance:	10 <sup>14</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	5.3	IEC 60250,
at 1 KHz, 23 °C	4.9	VDE 0303, TI.4
at 1 MHz, 23 °C	4.1	
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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