

Insulation / Flame protection

Resin 8612/20N + Hardener 8901

- **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**
- **UL 94 V0**

Product specification:

Mixing ratio (weight):	Resin 8612/20N	100 parts
	Hardener 8901	20 parts
Viscosity (22°C):	Resin 8612/20N	3'500 – 4'500 mPa·s
	Hardener 8901	160 – 240 mPa·s
	Mixing viscosity	1'200 – 1'800 mPa·s
Density (25°C):	Resin 8612/20N	1.60 – 1.65 g/cm ³
	Hardener 8901	1.20 – 1.25 g/cm ³
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	< T _g , TMA > T _g , TMA
Shrinkage after curing:	<1 %	
Water absorption:	0.3 % (30 days at 23°C)	
E-Modulus:	231 MPa	DIN EN ISO 527-2
Tensile strength:	14.2 N/mm ²	
Elongation at break:	19 %	
Operating temperature:	-40°C up to +130°C	
Flammability classification:	V-0 in 1.5 mm	

Electrical properties:

Dielectric strength:	30 kV/mm	IEC 60243-1, VDE 0303, TI.2
Volume resistance:	10 ¹⁴ 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	4.9	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
Comparative 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.

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