

Insulation / Flame protection

Resin 8610/20S (ex EN 88) + Hardener 8901 (ex 1001)

- 2-components polyurethane casting resin
- solvent-free system
- no metallic fillers
- no halogenated flame-retardants
- electrically insulating
- excellent adhesive properties
- ideal for electronic components, e.g. sensors, lithium-ion batteries and transformers

Product specification:

Mixing ratio (weight):	Resin 8610/20S	100 parts
	Hardener 8901	14 parts
Viscosity (22°C): (At 10 rpm)	Resin 8610/20S	9'500 – 11'500 mPa·s
	Hardener 8901	160 – 240 mPa·s
	Mixing viscosity	3'500 – 4'500 mPa·s
Density (22°C):	Resin 8610/20S	1.53 – 1.63 g/cm ³
	Hardener 8901	1.20 – 1.25 g/cm ³
Colour:	Black	
Pot life:	18 – 25 minutes	
	The curing time depends on the thickness of the layer, the casting volume and the temperature.	
Curing time (22°C):	12 – 24 hours	
Final hardness	10 – 14 days	

Physical properties:

Shore-Hardness:	D 45 – 55	ISO 868, DIN 53505
Thermal conductivity:	0.6 W/(m·K)	DIN EN ISO 22007
Glass transition temperature:	-2.0°C	TMA
Coefficient of expansion:	97.5 ppm/K 167.0 ppm/K	< T _g , TMA > T _g , TMA
Shrinkage after curing:	<1 %	
Water absorption:	0.3 % (30 days at 23°C)	
Operating temperature:	-55°C up to +165°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	5.7	IEC 60250,
at 1 KHz, 23 °C	5.1	VDE 0303, TI.4
at 1 MHz, 23 °C	4.9	
Dielectric dissipation factor:		IEC 60250,
(tan δ)		VDE 0303, TI.4
at 50 Hz, 23 °C	0.09	
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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TDS_8610_20S+8901/PC/24.07.2023