

Thermal Conductivity

Resin 8504/30 (ex FR 122) + Hardener 8930 (ex 3000)

- 2-components polyurethane casting resin
- solvent-free and electrically insulating
- very high thermal conductivity
- no metallic fillers
- excellent adhesive properties
- no halogenated flame-retardants
- ideal for heat-reduction of winding goods, electric motors, accumulators, and high-performance components
- **TIP:** Design variations of effective cooling elements, good combination with Kisling's LED-casting resins

Product specification:

Mixing ratio (weight):	Resin 8504	100 parts
	Hardener 8930	12 parts
Viscosity (22°C): (At 10 rpm)	Resin 8504	45'000 – 55'000 mPa·s
	Hardener 8930	450 – 750 mPa·s
	Mixing viscosity	12'000 – 18'000 mPa·s
Density (22°C):	Resin 8504	2.40 – 2.50 g/cm ³
	Hardener 8930	1.10 – 1.15 g/cm ³
Colour:	Nature (cream)	
Pot life:	30 – 45 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 40 – 50	ISO 868, DIN 53505
Thermal conductivity:	1.5 W/(m·K)	DIN EN ISO 22007
Glass transition temperature:	~ 17 °C	TMA
Coefficient of expansion:	128.6 ppm/K 160.3 ppm/K	< Tg, TMA > Tg, TMA
Shrinkage after curing:	<1 %	
Water absorption:	0.4 % (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:	28 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	5.5	IEC 60250,
at 1 KHz, 23 °C	4.5	VDE 0303, TI.4
at 1 MHz, 23 °C	3.9	
Dielectric dissipation factor:		
(tan δ)		IEC 60250,
at 50 Hz, 23 °C	0.09	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.

TDS_8504_30+8930_e/PC/06.09.2022