

Thermal Conductivity

Resin 8519/30 (ex FR30) + Hardener 8973 (ex 1073)

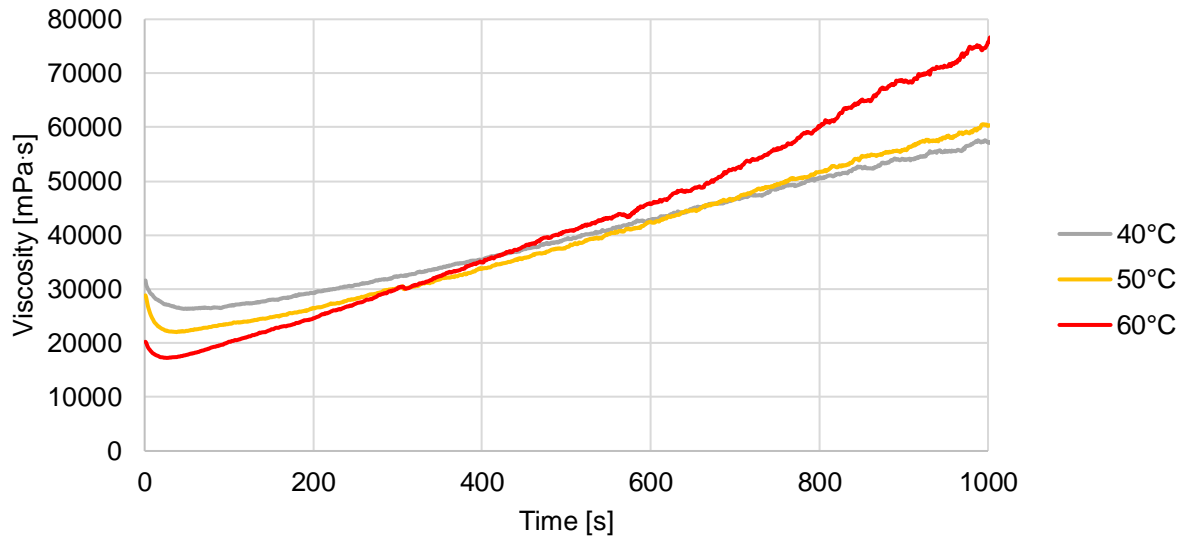
- 2-components polyurethane casting resin
- solvent-free system and electrically insulating
- excellent thermal conductivity
- no metallic fillers
- no halogenated flame-retardants
- excellent adhesive properties
- ideal for heat-reduction of winding goods, electric motors, accumulators, and high-performance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

Product specification:

Mixing ratio (weight):	Resin 8519 Hardener 8973	100 parts 7 parts
Viscosity (22°C) (At 10 rpm):	Resin 8519 Hardener 8973 Mixing viscosity	100'000 – 140'000 mPa·s 15 – 35 mPa·s 60'000 – 100'000 mPa·s
Density (22°C):	Resin 8519 Hardener 8973	2.00 – 2.20 g/cm ³ 1.20 – 1.25 g/cm ³
Colour:	Nature (beige)	
Pot life:	10 – 30 minutes The curing time depends on thickness of the layer, the casting volume and the temperature	
Curing time (22°C):	16 – 30 hours	
Final hardness	10 – 14 days	

Viscosity curve:

Viscosity over time (At 10 rpm)



Physical properties:

Shore-Hardness:	D 20 – 30	ISO 868, DIN 53505
Thermal conductivity:	3.5 W/(m·K)	DIN EN ISO 22007
Glass transition temperature:	-8.4 °C	TMA
Coefficient of expansion:	131.5 ppm/K	< Tg, TMA
	157.4 ppm/K	> 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 4.0mm	

Electrical properties:

Dielectrical strength:	28 kV/mm	IEC 60243-1, VDE 0303, TI.2
Volume resistance:	$10^{15} \Omega \cdot \text{cm}$ (23°C/ 50% r.F.)	IEC 60243-1, VDE0303, TI.30
Surface resistance:	$10^{16} \Omega$ (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_8519_30+8973/PC/06.09.2022