

PUre Thermal Conductivity FR 28/30

- 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**

✓ The casting resin is used with **PUre Hardener 1073**

✓ Product name explanations:

PUre Thermal Conductivity = product line

FR 28 = product name

/30 = potlife configuration in min

Product specification:

Operating temperature:	-40°C up to +130°C	
Flammability classification:	V-0 in 4,0mm	
Mixing ratio:	100 parts PUre Thermal Conductivity FR 28/30 8 parts PUre Hardener 1073	
Viscosity (22°C) (At 10 rpm):	resin: PUre Thermal Conductivity FR 28/30	100.000 - 140.000 mPa*s
	hardener: PUre Hardener 1073	15 - 35 mPa*s
	mixing viscosity	15.000 - 35.000 mPa*s
Density (22°C):	resin: PUre Thermal Conductivity FR 28/30	2,25 - 2,35 g/cm ³
	hardener: PUre Hardener 1073	1,20 - 1,25 g/cm ³
Colour:	nature, or as required	
Potlife:	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	

Physical properties:

Shore-Hardness:	D 40 - 50	ISO 868, DIN 53505
Thermal conductivity:	2,6 W/m*K	DIN EN ISO 22007
Glass transition temperature:	-23,1 °C	TMA
Coefficient of expansion:	91,4 ppm/K	< Tg, TMA
	129,1 ppm/K	> Tg, TMA
Shrinkage after curing:	<1 %	
Water absorption:	0,4 % (30 days at 23°C)	
Insulation class:	B	IEC 60085

Electrical properties:

Dielectrical strength:	31 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	5,8	IEC 60250,
at 1 KHz, 23 °C	5,2	VDE 0303, TI.4
at 1 MHz, 23 °C	4,6	
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.