

PUre Thermal Conductivity FR 128/30

- **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**

- ✓ The casting resin is used with **PUre Hardener 3000**
- ✓ Product name explanations:
 - PUre Thermal Conductivity = product line
 - FR 128 = product name
 - /30 = potlife configuration in min

Product specification:

Operating temperature:	-40°C up to +130°C	
Flammability classification:	V-0 in 4,0 mm	
Mixing ratio:	100 parts PUre Thermal Conductivity FR 128/30 9 parts PUre Hardener 3000	
Viscosity (22°C): (At 10 rpm)	resin: PUre Thermal Conductivity FR 128/30	110.000 - 130.000 mPa*s
	hardener: PUre Hardener 3000	450 - 750 mPa*s
	mixing viscosity	60.000 - 70.000 mPa*s
Viscosity (40°C): (At 10 rpm)	resin: PUre Thermal Conductivity FR 128/30	60.000 - 80.000 mPa*s
	mixing viscosity	40.000 - 60.000 mPa*s
Density (22°C):	resin: PUre Thermal Conductivity FR 128/30	2,30 - 2,40 g/cm ³
	hardener: PUre Hardener 3000	1,10 - 1,15 g/cm ³
Colour:	nature, blue or as required	
Potlife:	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:	2,6 W/m*K	DIN EN ISO 22007
Glass transition temperature:	-22,9 °C	TMA
Coefficient of expansion:	137,9 ppm/K	< Tg, TMA
	162,0 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
	at 1 KHz, 23 °C	4,2
	at 1 MHz, 23 °C	4,6
Dielectric dissipation factor: (tan δ)		IEC 60250, VDE 0303, TI.4
	at 50 Hz, 23 °C	0,09
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.