

PUre Thermal Conductivity FR 22/30

- 2-components polyurethane casting resin
- solvent-free system 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 1001**
- ✓ Product name explanations:
 - PUre Thermal Conductivity = product line
 - FR 30 = product name
 - /30 = potlife configuration in min

Product specification:

Operating temperature:	-50°C up to +160°C	
Flammability classification:	V-0 in 4,0 mm	
Mixing ratio:	100 parts PUre Thermal Conductivity FR 22/30 8 parts PUre Hardener 1001	
Viscosity (22°C): (At 10 rpm)	resin: PUre Thermal Conductivity FR 22/30	45.000 - 50.000 mPa*s
	hardener: PUre Hardener 1001	160 - 240 mPa*s
	mixing viscosity	5.800 - 6.500 mPa*s
Density (22°C):	resin: PUre Thermal Conductivity FR 22/30	2,35 - 2,45 g/cm ³
	hardener: PUre Hardener 1001	1,20 - 1,25 g/cm ³
Colour:	Nature, blue or as required	
Potlife:	25 - 35 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:	10,0 °C	TMA
Coefficient of expansion:	72,5 ppm/K	< Tg, TMA
	141,7 ppm/K	> Tg, TMA
Shrinkage after curing:	<1 %	
Water absorption:	0,2 % (30 days at 23°C)	
Insulation class:	F	IEC 60085
E-Modulus	65	DIN EN ISO 527-2
Tensile Strength	4 N/mm ²	
Elongation at break	25 %	

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	5,6	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.