BONDING + SEALING + ENCAPSULATION



Thermal Conductivity

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

- 2-components polyurethane casting resin
- CMR-free *
- solvent-free and electrically insulating
- very high thermal conductivity
- no metallic fillers
- 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

* not subject to CMR labelling according to section 2 of the safety data sheet

Product specification:

Mixing ratio (weight):	Resin 8504/30N	100 parts	
	Hardener 8930	12 parts	
Viscosity at 22°C: (At 10 rpm)	Resin 8504/30N	45'000 - 55'000 mPa·s	
	Hardener 8930	450 − 750 mPa·s	
	Mixing viscosity	12'000 - 18'000 mPa·s	
Viscosity at 40°C:	Harz 8504/30N	25'000 - 35'000 mPa·s	
(At 10 rpm)	Mixing viscosity	8'000 - 10'000 mPa·s	
Viscosities measured according to DIN 53019-1; Plate/Plate			
Density at 22°C:	Resin 8504/30N	2.40 - 2.50 g/cm ³	
(DIN EN ISO 2811-1)	Hardener 8930	1.10 - 1.15 g/cm³	
Colour:		Nature (cream)	

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Pot life:	
(Triplication of the initial	30 – 45 minutes
viscosity)	
Curing time at 22°C:	16 – 30 hours
Final hardness at 22°C:	10 – 14 days
Physical properties:	
Shore-Hardness:	
(DIN EN ISO 868)	D 40 - 50
Thermal conductivity:	1 5 \\\// \/\
(DIN EN ISO 22007)	1.5 W/(m·K)
Glass transition temperature:	17 %
(TMA; ISO 11359)	~ 17 C
Coefficient of expansion: < Tg	128.6 ppm/K
(TMA; ISO 11359) > Tg	160.3 ppm/K
Shrinkage after curing:	<1 %
Water absorption:	0.4%
(30 days at 23°C)	0.4 %
Operating temperature:	-40°C up to +130°C
Flammability classification:	V-0 in 4.0 mm
(UL 94)	V-0 III 4.0 IIIIII

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Electrical properties:

Dielectric strength:		28 kV/mm
(IEC 60243-1, VDE 0303, TI.2)		20 (0/11111
Volume resistance:	23°C / 50% r H	10 ¹⁵ Ω·cm
(IEC 60243-1, VDE 0303, TI.30)	20 07 00%111	
Surface resistance:	23°C / 50% r H	10 ¹⁶ O
(IEC 60243-1, VDE 0303, TI.30)	20 0 , 00 0	
Dielectric constant (ε _r) at 23°C: (IEC 60250, VDE 0303, TI.4)	at 50 Hz	5.5
	at 1 KHz	4.5
	at 1 MHz	3.9
Dielectric dissipation factor at		
23 °C (tan δ):	at 50 Hz	0.09
(IEC 60250, VDE 0303, TI.4)		
Comparative 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.

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