

Technical Datasheet

WEVOPUR 9251 FL

Two-component encapsulating system based on polyurethane. The resin component is formulated with a mineral filler which provides self-extinguishing properties without use of halogen compounds. The resin does not contain halogenated flame-retardants, heavy metals or chloro-fluorocarbons.

The cured polymer exhibits tough-elastic properties as well as outstanding adhesion to most plastic materials, metals and glass and excellent behavior in thermal cycle tests.

The material achieves UL 94 V-0 properties at a thickness of 6,0 mm and is approved and listed in colours black and nature under the File No. E108835.

Temperature range of use: -40°C to +135°C.

The casting resin is used with WEVONAT 300

Applications: Encapsulation, sealing or coating of electrical components for low and medium voltage applications like sensors, switches or PCBs.

Product Specification:

<u>Mixing ratio:</u>	100	parts by weight	WEVOPUR 9251 FL		
	15	parts by weight	WEVONAT 300		
<u>Viscosity (22°C):</u>	WEVOPUR 9251 FL :	5.200	–	6.000	mPa·s
	WEVONAT 300:	70	–	120	mPa·s
	Mixture:	2.000	–	3.000	mPa·s
<u>Density (22°C):</u>	WEVOPUR 9251 FL :	1,53	–	1,56	g/cm³
	WEVONAT 300:	1,20	–	1,24	g/cm³
<u>Colour::</u>	WEVOPUR 9251 FL :	black or as requested			
	WEVONAT 300:	brown			
<u>Pot life (100g):</u>	30 – 40 minutes		at room temperature		
	The curing time depends on the temperature, the pot life, the thickness of the layer and the casting volume				
<u>Curing time:</u>	12 – 24 hours		at room temperature		

It is possible to accelerate the potlife and curing time as requested.

Physical Properties:

(after curing 24 h./80°C)

Test specification:

<u>Shore-hardness D:</u>	30 – 40	ISO 868, DIN 53505
<u>Tensile strength:</u>	4,5 N/mm ²	ISO 527-2
<u>Elongation at break:</u>	40 %	ISO 527-2
<u>Modulus of elasticity:</u>	40 N/mm ²	ISO 527-2
<u>Thermal conductivity:</u>	0,57 W/m·K	ISO 22007-2:2008
<u>Glass transition temperature:</u>	-26 °C	TMA
<u>Coefficient of Expansion:</u>	40 ppm/K 136 ppm/K	< -30°C, TMA > +30°C, TMA
<u>Thermal class:</u>	-	DIN EN 60085
<u>Shrinkage after curing:</u>	-	
<u>Water absorption:</u>	-	after 30 days immersion
<u>Flammability:</u>	V-0 (6 mm)	UL94

Electrical Properties:

<u>Dielectric strength:</u>	> 20 kV/mm	DIN EN 60243
<u>Volume resistance:</u> 23°C/50% r.h.	-	DIN EN 60093
<u>Surface resistance:</u> 23°C/50% r.h.	-	DIN EN 60093
<u>Dielectric constant ϵ:</u> at 50 Hz, 23°C at 1 kHz, 23°C at 1 MHz, 23°C	6,71 5,97 4,55	DIN EN 60250
<u>Dissipation factor $\tan \delta$:</u> at 50 Hz, 23°C at 1 kHz, 23°C at 1 MHz, 23°C	0,084 0,061 0,026	DIN EN 60250
<u>Comparative tracking index:</u>	CTI 600	DIN EN 60112

Packaging: 10 kg and 30 kg-buckets, 250 kg drums

Shelf life: in original closed cans or drums, dry storage between 15°C and 25°C, 6 months.

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RoHS conform

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