

## WEVOPUR 552 FL

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Two-component encapsulating system based on polyurethane. The resin component contains a mineral filler providing the material with self-extinguish properties. The resin contains no halogenated flame-retardants and is tough elastic. The system is tested by Underwriters Laboratories under the File-No. E108835 at a thickness of 1,5 mm according to UL 94 V-0. HWI, HAI and CTI-tests are passed with PLC 0, the RTI value is 130°C (mechanical and electrical strength). This product has the all colour recognition.

Operating temperature -40°C to +130°C.

The casting resin is used with **WEVONAT 300**

Applications: Encapsulation of electrical components like coils, sensors, capacitors or PCBs.

### Product Specification:

<u>Mixing ratio:</u>	by weight: 100 parts WEVOPUR 552FL 20 parts WEVONAT 300		
<u>Viscosity (22°C):</u>	WEVOPUR 552FL:	6.000 - 7.000	mPa•s
	WEVONAT 300:	70 - 120	mPa•s
	Mixture at 22°C:	1.000 - 1.300	mPa•s
<u>Density (22°C):</u>	WEVOPUR 552FL:	1,56 - 1,60	g/cm³
	WEVONAT 300:	1,20 - 1,24	g/cm³
<u>Colour:</u>	WEVOPUR 552FL:	black, nature or as requested	
	WEVONAT 300:	dark brown	
<u>Pot life (250gr.):</u>	35 - 50 minutes	at room temperature	
	The curing time depends on the temperature, the potlife, the thickness of the layer and the casting volume.		
<u>Curing time:</u>	12 - 24 hours	at room temperature	
<u>Final hardness:</u>	10 - 14 days	at room temperature	

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



**Physical Properties:**

<u>Shore-hardness D:</u>	65 - 70
<u>Tensile strength:</u>	6 N/mm <sup>2</sup>
<u>Elongation at break:</u>	62 %
<u>Modulus of elasticity:</u>	55 N/mm <sup>2</sup>
<u>Thermal conductivity:</u>	0,61 W/m·K
<u>Glass transition temperature:</u>	15 °C
<u>Coefficient of Expansion:</u>	58 ppm/K 142 ppm/K
<u>Thermal class:</u>	B
<u>Shrinkage after curing:</u>	1 %
<u>Water absorption:</u>	0,4 %
<u>Flammability:</u>	V-0, 1,5 mm
<u>Glow wire flammability:</u>	960°C, 3,5mm

**Electrical Properties:**

<u>Dielectric strength:</u>	29 kV/mm	IEC 60085 VDE 0303, TL.2
<u>Volume resistance:</u> 23°C/50% r.h.	$5 \cdot 10^{13} \Omega \cdot \text{cm}$	IEC 60093 VDE 0303, TL.30
<u>Surface resistance:</u> 23°C/50% r.h.	$2.8 \cdot 10^{16} \Omega$	IEC 60093 VDE 0303, TL.30
<u>Dielectric constant <math>\epsilon</math>:</u> at 50 Hz, 23°C at 1 kHz, 23°C at 1 MHz, 23°C	5.6 4.6 3,7	IEC 60250 VDE 0303, TL.4
<u>Dissipation factor <math>\tan \delta</math>:</u> at 50 Hz, 23°C at 1 kHz, 23°C at 1 MHz, 23°C	0.117 0.0842 0,038	IEC 60250 VDE 0303, TL.4
<u>Comparative tracking index:</u>	CTI 600-0.1	IEC 60112 VDE 0303, TL.1

Packaging: 5 kg, 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.

**Test specification:**

ISO 868, DIN 53505
ISO 527-2
ISO 527-2
ISO 527-2
ISO 8894
TMA
< 10°C TMA
> 20°C TMA
IEC 60085
after 30 days immersion
UL 94
IEC 60695-2-1

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