



WEVO-Casting Resin PU 403

Solventless casting resin system based on polyurethane, consisting of resin and hardener. The resin component contains the non-abrasive filler and is degased.

After curing the resin has an excellent thermal conductivity with a good flexibility at low temperatures and a high thermal resistance. The system can be used for thermal F class applications.

Temperature range of use: -50°C to +165°C.

The resin is used with **WEVO-Hardener 300**.

Applications: Casting resin for electrical application, f.e. for power or instruments transformers, capacitors, relays and sensors.

Product Specification:

<u>Mixing ratio:</u>	by weight:	100 parts PU 403 : 14 parts Hardener 300
<u>Viscosity (22°C):</u>	PU 403:	20.000 – 30.000 mPa·s
	Hardener 300:	70 – 120 mPa·s
	Mixture:	2.500 – 3.500 mPa·s
<u>Density (22°C):</u>	PU 403:	1,74 – 1,80 g/cm ³
	Hardener 300:	1,20 – 1,22 g/cm ³
<u>Colour:</u>	PU 403:	black or as requested
	Hardener 300:	brown
<u>Pot-life (250 g):</u>	30 - 40 minutes.	
<u>Curing time:</u>	ca. 12 hours.	

The curing time depends on the temperature, the pot-life, the thickness of the layer and the casting volume.

Final hardness: 10 - 14 days at RT

It is possible to accelerate the pot-life and curing time as requested.

Cured Properties:

<u>Shore-Hardness D:</u>	68	ISO 868, DIN 53505
<u>Tensile strength:</u>	26 N/mm ²	DIN 53455
<u>Elongation at break:</u>	15 %	DIN 53455
<u>Thermal conductivity:</u>	0,68 W/m·K	DIN VDE 0304, TI.1
<u>Coefficient of expansion:</u>	$90 \cdot 10^{-6} \text{ K}^{-1}$	20 - 100°C
<u>Glass transition temperature:</u>	50°C	DIN 53445
<u>Thermal index:</u>	165°C	IEC 216
<u>Water absorption:</u>	0,3 %	after 30 days immersion

Electrical Properties:

<u>Dielectric strength:</u>	23 kV/mm	IEC 243
140°C/4 kV/5 min.	no break-down	DIN VDE 0303, TI.2 EN 50028
<u>Surface resistance:</u>		
23°C/50% r.H.	$10^{13} \Omega$	IEC 93
4d/23°C/80% r.H.	$10^{13} \Omega$	DIN VDE 0303, TI.3
24 h water immersion	$10^{12} \Omega$	
<u>Volume resistivity:</u>		
23°C/50% r.H.	$10^{14} \Omega \cdot \text{cm}$	IEC 93
4d/23°C/80% r.H.	$10^{13} \Omega \cdot \text{cm}$	DIN VDE 0303, TI.3
24 h water immersion	$10^{13} \Omega \cdot \text{cm}$	
<u>Dielectric constant ϵ:</u>		
at 50 Hz	6,0	IEC 250
1 kHz	5,8	DIN VDE 0303, TI.4
1 MHz	5,5	
<u>Dissipation factor $\tan \delta$:</u>		
at 50 Hz	0,05	IEC 250
1 kHz	0,07	DIN VDE 0303, TI.4
1 MHz	0,07	
<u>Comparative tracking index:</u>	CTI 600 - 0,01	IEC 112 DIN VDE 0303, TI.1
<u>Packing:</u>	1 kg, 5 kg, 10 kg und 30 kg-bucket, 250 kg drums	
<u>Durability:</u>	in original closed cans or drums, at a dry storage between 18°C and 25°C, 6 months.	

Our technical advice - whether verbal, in writing or by way of trials - is given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us to their suitability for the intended processes and uses. The application, use and processing of the products are beyond our control and, therefore, entirely your own responsibility. Should in spite of this, liability be established by us and used by you. We will, of course, provide products of consistent quality within the scope of our General of Sale and Delivery.

PU403/Ha300

Version 01/03 replaces version 08/02

WEVO-CHEMIE GMBH

Office: D-73760 Ostfildern-Kemnat, Schönbergstraße 14
Factory: Plant 1: Mergenthalerstraße 13, Plant 2: Schönbergstraße 14
Phone +49-711-16761-0 · Fax +49-711- 16761-44
<http://www.wevo-chemie.de> · E-Mail: info@wevo-chemie.de

