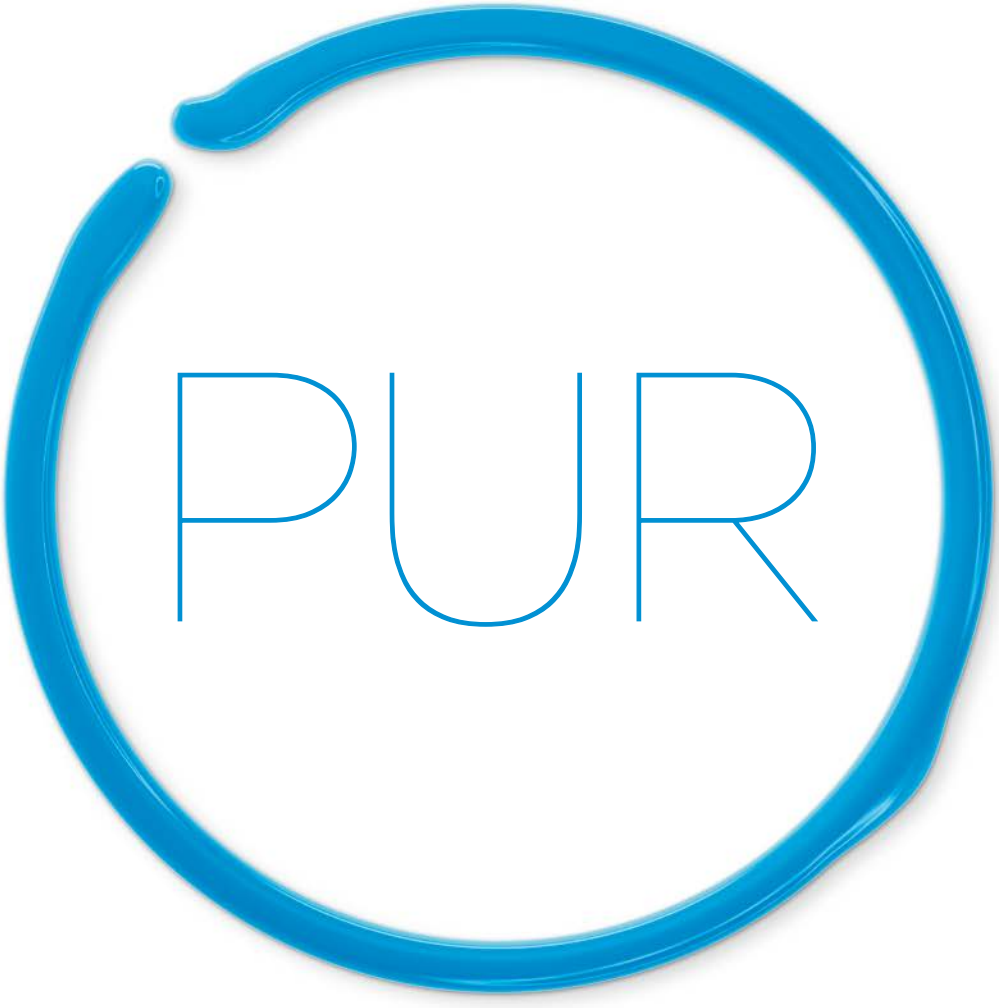
wevo

CUSTOMISED POLYURETHANE SOLUTIONS

WEVOPUR FOR ELECTRICAL AND ELECTRONIC APPLICATIONS



WEVOPUR

OUR VERSATILE POLYURETHANE SYSTEMS

Our WEVOPUR products are the number one choice for a wide range of applications – especially owing to their great versatility in terms of formulation options and the product properties that can be achieved with them.

THERMAL CONDUCTIVITY

Thermally conductive solutions ensure better temperature control and fewer hotspots.

- Thermal conductivity up to 2 W/m·K
- Higher power densities
- Cooling of components
- Use as a gap filler

TRANSPARENCY

For applications that require transparency, we have transparent systems that protect sensitive components such as LEDs and sensors.

- UV-stable
- Low refractive index
- Very good translucency across a wide wavelength spectrum
- Weather-resistant

FLAMMABILITY

Our products with flame-retardant properties are certified according to various test standards.

- EN 45545-2 HL3 in R22/R23
- UL 94 V, HB and 5V
- Glow Wire Flammability Index (GWFI)
- Hot Wire Ignition (HWI)
- High-current Arc Ignition (HAI)

ELECTRICAL PROPERTIES

High dielectric strength and good dielectric properties enable their use in a very wide range of electrical applications.

- Low dielectric constants for improved transmission of electromagnetic signals
- Comparative Tracking Index (CTI 600)
- Relative Temperature Index (RTI Elec)
- High dielectric strength > 30 kV/mm

WEVO – TRADITION OF INNOVATION

We are a leading specialist in custom casting/potting solutions as well as adhesives and sealants based on polyurethane, epoxy and silicone. More than 75 years of experience in development and applications go into each and every one of our products. The outcome: optimum solutions for reliable and safe components.

OUR CORE COMPETENCIES

Tailor-made solutions: We develop our formulations according to the product and processing requirements of our customers.

Custom services: As an expert partner, we work hand in hand with our customers from the initial product idea through to series production.

Flexible logistics: We use all shipping methods, including isothermal transportation and custom packaging concepts.

Knowledge transfer: Technical and chemical expertise go hand in hand at Wevo – from customer seminars to collaboration with research institutions or panels of experts.

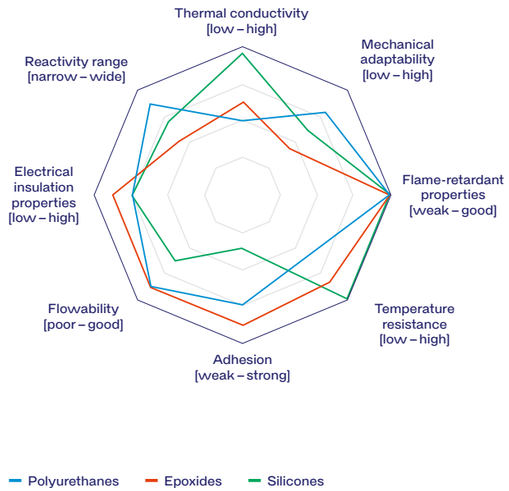
CERTIFICATIONS AND APPROVALS

Our uncompromising product quality is a direct result of adhering to strict guidelines and standards for chemical materials and their safe use.

IATF 16949 · ISO 9001 · ISO 14001 · ISO 45001 · UL 94 · RTI · HWI / HAI · DIN EN 45545-2 · DIN EN 60216-1 · ExPlast · RoHS · REACH SVHC

OUR MATERIALS AT A GLANCE

We work with customers of all sizes, from all sectors and industries. Thanks to our broad portfolio, we can find the right solution for every application.



EXTRACT FROM POLYURETHANE PRODUCT OVERVIEW

WEVOPUR		PD 4	PD 445	PD 52	139	3050	390	403	403 FL/33	512 FLE	552 FL	500 MT/40	923 M	58093	7210 FL	9251 FL	801 G	895
WEVONAT		385	385	385	300	300 M	300	300	300 RE	900 E	300	300	300 M	600	507	300 RE	801	600
Mixing ratio (parts by weight)		100:34	100:20	100:26	100:10	100:50	100:30	100:14	100:14	100:16	100:20	100:30	100:18	100:33	100:43	100:15	100:33	100:25
Mixed viscosity at 22°C [mPa·s]	Rotational viscometer	1,200–1,600	1,800–2,200	1,200–2,000	800–1,200	1,100–1,300	800–900	2,500–3,500	1,000–1,800	4,500–6,000	1,000–1,300	6,000–8,000	1,700–2,300	1,600–2,200	400–600	1,300–1,800	2,000–4,000	15,000–25,000
Reactivity at 22°C [min.]*	Rotational viscometer	10–40	3–40	5–40	5–35	10–30	10–50	5–50	30–40	10–60	5–50	35–45	10–50	10–50	5–35	10–50	3–60	3–30
Density of resin at 22°C [g/cm³]	DIN EN ISO 2811-1:2016-08	0.91–0.93	0.93–0.95	1.06–1.09	1.03–1.05	0.99–1.02	1.28–1.31	1.75–1.79	1.62–1.68	1.56–1.62	1.56–1.60	1.28–1.31	1.25–1.27	1.37–1.42	1.53–1.57	1.53–1.56	1.47–1.53	1.40–1.47
Density of hardener at 22°C [g/cm³]	DIN EN ISO 2811-1:2016-08	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24	1.20–1.24
Shore hardness A/D	DIN ISO 7619-1:2012-02	60–75 / --	20–30 / --	70–80 / --	40–50 / --	-- / 50–60	-- / 35–45	-- / 65–75	-- / 40–50	80–85 / --	-- / 60–70	-- / 50–60	70–75 / --	-- / 60–70	-- / 80–90	-- / 30–40	-- / 80–88	-- / 45–55
Operating temperature [°C]		-60 up to +120	-60 up to +120	-60 up to +125	-40 up to +125	-40 up to +125	-40 up to +130	-50 up to +165	-50 up to +165	-40 up to +130	-40 up to +130	-40 up to +120	-40 up to +120	-40 up to +140	-40 up to +145	-40 up to +135	-40 up to +140	-30 up to +130
E modulus [N/mm²]	DIN EN ISO 527-2:2012-06	15	2	15	–	–	15	116	110	19	55	60	10	350	5,500	20	2,900	70
Thermal conductivity [W/m·K] (pressureless)	DIN EN ISO 22007-2:2015-12	0.2	0.2	0.3	0.2	0.2	0.4	0.6	0.73	0.8	0.6	0.4	0.4	0.4	0.6	0.6	0.6	0.5
Glass transition temperature (Tg) [°C]	TMA ISO 11359-2:1999-10	-60	-65	-60	-45	36	-4	-4	-6	-7	15	25	-25	30	85	-20	40	25
Coefficient of expansion [ppm/K]	TMA ISO 11359-2:1999-10	56 < Tg 211 > Tg	80 < Tg 220 > Tg	65 < Tg 175 > Tg	66 < Tg 260 > Tg	85 < Tg 206 > Tg	79 < Tg 178 > Tg	42 < Tg 146 > Tg	42 < Tg 146 > Tg	60 < -20 150 > -5	58 < Tg 142 > Tg	90 < Tg 195 > Tg	70 < Tg 215 > Tg	60 < 20 215 > 40	54 < Tg 151 > Tg	50 < Tg 162 > Tg	76 < Tg 206 > Tg	70 < Tg 230 > Tg
Water absorption [%]	30 days, 22°C	0.2	0.2	0.5	3.5	0.4	0.3	0.7	0.6	0.3	0.4	0.5	2.3	1.1	0.3	1.3	0.5	0.6
Flammability	UL 94	HB	HB	HB	HB	HB	V-2 1.5 mm**	HB	V-0 1.6 mm**	V-0 6 mm**	V-0 1.5 mm**	HB	HB	HB	V-0 6 mm**	V-0 6 mm**	HB	HB
Dielectric strength [kV/mm]	DIN EN 60243-1:2014-01	25	20	23	22	30	32	30	30	> 25	29	28	25	> 20	34	> 20	32	35
Volume resistivity [Ω·cm]	DIN EN 62631-3-1:2017-01	10^{14}	10^{13}	10^{14}	10^{11}	–	10^{14}	10^{14}	10^{14}	10^{14}	10^{13}	10^{14}	10^{13}	10^{13}	10^{14}	10^{12}	10^{16}	10^{14}
Dielectric constant ε (at 50 Hz, 23°C)	DIN EN IEC 62631-2-1:2018-12	3.1	5.1	3.0	8.7	3.4	5.5	5.7	5.7	5.6	5.6	4.0	7.1	6.3	3.7	7.8	3.6	–
Loss factor tan δ (at 50 Hz, 23°C)	DIN EN IEC 62631-2-1:2018-12	0.014	0.020	0.080	0.347	0.033	0.140	0.040	0.040	0.146	0.117	0.070	0.060	0.093	0.010	0.090	0.021	–

All application parameters refer to processing at room temperature. All mechanical, thermal and electrical properties are based on complete curing.
* The indicated range of pot life corresponds with current standard versions. Adjustment of pot life is possible.
** UL listing under file No. E108835

For a more detailed technical description of our systems please refer to the corresponding data sheets which are available for all products.
Please see our special notes on the back of this leaflet.

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