



## Instructions for processing polyurethane mixture the VUKUR OM

VUKI a.s.

Apply the following principles when working with polyurethane (PUR) physical VUKUR OM. Please take into account:

- Shelf life is as follow: VUKOL and VUKIT M 6 months, in original and tightly closed package at  $15\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$ .
- Prevent entry of moisture (e.g. from the air, condensate in the watered object, sweat of the worker during mixing, etc.) into the mass during handling the individual components also during the mixing as well as curing. Note: 1% of water content causes a volume increase of 30% and foaming the mixture. The recommended humidity of the air should be less than 60%.
- Mix thoroughly the VUKOL part to make it homogenous (at least 3 min.) before adding the hardener. After prolonged storage the deposits may arise in the mass. Those have to be perfectly stirred. To facilitate stirring, the composition may be warmed to  $50\text{ }^{\circ}\text{C}$  (not direct heating).
- Do not mix with wood. We recommend metal stirrer.
- Original packaging (containers) of VUKOL or separate container, which must be dry and clean, can be used for mixing procedure.
- Strictly observe the mixing ratio. The maximum permissible deviation from the prescribed ratio is  $\pm (5 \div 7)\%$  compared to the prescribed ratio.
- The mixture of VUKOL with VUKIT should be mixed thoroughly to homogenize (stir min. 5 min.).
- Ensure that no air is mixed inside the mixture during stirring (use such stirrer to be whole immersed in the composition).
- We recommend to make potting process immediately after a thorough mixing of ingredients. Ensure that there is no humidity (even condensation from air) inside the potting object.
- Curing process requires the ambient temperature of at least  $+15\text{ }^{\circ}\text{C}$  (ideally  $+23\text{ }^{\circ}\text{C}$ ), otherwise longer curing time. At low temperatures, it may happen that the composition hasn't cured sufficiently or not cure at all.
- polyurethane composition still working – slightly hardening also for 14 days (at  $23\text{ }^{\circ}\text{C}$ ; at higher temperatures, it is less and vice versa) then it is no longer changed.
- Residues of VUKOL may be disposed by direct incineration. Containers of VUKOL can be directly scraps. Hardener remains is possible disposed of as other solid waste after mixing with polyols and after hardening. More information in the data sheet or in the processing conditions.

Please contact us for further information.



# POLYURETHANE POTTING COMPOUND VUKUR OM

VUKI a.s.

Product	VUKOL O22F / VUKOL O22Fč	VUKOL O22	VUKOL O22H / VUKOL O22Hč	VUKOL O33	VUKOL O33u	VUKOL O33n / VUKOL O33nč	VUKOL O33nču	VUKOL O34 / VUKOL O34č	VUKIT M
Use	potting of capacitors and electronics	Potting of cable terminations and joints. Suitable for contact with drinking water, thermal shocks up to 180 ° C	It includes a desiccant	Potting of welding transformers, transformer's winding terminals	A shorter curing time. Potting of terminal blocks for ATEX (EX) environment	It contains flame retardants. Potting of terminal blocks for ATEX (EX) environment. Potting of magnets, magnetic cutting tables.	Potting of instrument transformers windings. Resistant to seawater.	Potting of railway transformers. Thermally conductive material	hardener
Density at 25°C	940 - 1100	950 - 1090 kg/m <sup>3</sup>	960 - 1090 kg/m <sup>3</sup>	1350 - 1490 kg/m <sup>3</sup>	1350 - 1490 kg/m <sup>3</sup>	1350 - 1353 kg/m <sup>3</sup>	1350 - 1353 kg/m <sup>3</sup>	1610 - 1630 kg/m <sup>3</sup>	1190 - 1250 kg/m <sup>3</sup>
Viscosity at 25°C	400 - 500	900 - 1000 mPas	1000 - 1300 mPas	4000 - 5000 mPas	4000 - 5000 mPas	3000 - 3500 mPas	3000 - 4000 mPas	8500 - 10500 mPas	70 - 140 mPas
Viscosity range	up to 1000	up to 1500 mPas	up to 1700 mPas	up to 8000 mPas	up to 8000 mPas	3000 - 6000 mPas	3000 - 6000 mPas	up to 11000 mPas	
Color	green/black (č)	green	green / black (č)	black	black	green / black (č)	black	green / black (č)	brown
Mixing ratio	100 : 39	100 : 37	100 : 35	100 : 19,6	100 : 19,6	100 : 23	100 : 23	100 : 14	
Initial compound viscosity at 25°C	600 - 900 mPas	700 - 1000 mPas	600 - 1100 mPas	2000 - 3000 mPas	2000 - 3000 mPas	2000 - 3000 mPas	2000 - 3000 mPas	3500 - 4500 mPas	
Gel time at 25°C	> 40 min	> 30 min	> 30 min	> 40 min	> 11 min	> 40 min	> 15 min	> 20 min	
hardening time	min. 24 h	min. 24 h	min. 24 h	min. 24 h	min. 12 h	min. 16 h	min. 12 h	min. 16 h	
Hardness Shore A / D	68 - 76 / -	68 - 76 / -	71 / -	87 - 88 / 34 - 36	87 - 88 / 34 - 36	87 - 88 / 34 - 36	87 - 88 / 34 - 36	94 / -	
Tensile strength	1,9 - 2,2 Mpa	2,4 MPa	2,4 MPa	3,94 MPa	3,94 MPa	4,4 - 6,1 MPa	4,4 - 6,1 MPa	3,5 - 5,5 MPa	
Elongation at break	70 %	49 %	48 %	32 %	32 %	31 - 35 %	31 - 35 %	14 - 34 %	
Thermal conductivity	0,22 W/ m.K	0,22 W/ m.K	0,22 W/ m.K	0,33 W/ m.K	0,33 W/ m.K	0,33 W/ m.K	0,33 W/ m.K	0,46 W/ m.K	
Shrinkage after curing						0,3 %	0,3 %		
Water absorption		0,6 % / 30 days							
Inflammability	V-2	V-2	V-2	V-2	V-2	3s / 26mm	3s / 26mm	V-2	
Electric strength at 23°C	27 kV / mm	26 kV / mm	27 kV / mm	22 kV / mm	22 kV / mm	22 - 27 kV / mm	22 - 27 kV / mm	23 kV / mm	
tan δ		0,2							

Flash point: VUKOL = 296 °C / VUKIT M = 200 °C

Thermal resistance: -50 °C ÷ +130 °C (continuously), up to +150 °C (short term)

Use: mentioned use of PUR materials is for information only. Please contact us for recommendation for your specific application. We can provide you with a sample for testing.

The data shown above are for information only.