



TECHNICAL DATA SHEET

VILEPOX[®] U-461/40 Hard, fire-retardant PUR Casting Resin

Application:

System for casting of small and medium-voltage transformers, capacitors, windings etc. Two- component, fire retardant system hardening at room temperature.

Characteristics:

- „B” class, working temperature -25-130 °C
- Hard type
- good dielectric properties
- fire retardant V-0 / 4 mm
- UL certified
- good mechanical properties
- very good thermal-shock resistance
- good thermal conductivity
- available in natural and colour versions
- low viscosity, bubble free castings
- good processibility
- free of solvents and halogens

Specification of the components:

	VILEPOX U-461/40 component "A"	VILEPOX U-461/40 component "B"
Description	a special polyol with inorganic fillers *	Polyisocyanate hardener
Appearance	light beige liquid **	brown transparent liquid
Density (24 °C-on), g/cm³	1,54-1,58	1,20 – 1,22
Viscosity (25°C-on), mPas	3000-6000	10 – 40
Storage conditions	in a dry place far away from direct heat, in tightly closed containers at 5-25°C	
Shelf Life	min. 6 month	min.6 month
Packaging ***	30 kg	7,5 kg
inflammability	Grade III.	Grade III.

* Sedimentation is allowed

** Colour could vary based on the customer's needs.

*** Packaging could vary according to the customer needs.



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Specification of the mixture:

Mixing ratio:

VILEPOX U-461/40 component „A”
VILEPOX U-461/40 component „B”

100,0 parts of mass (kg)
25,0 parts of mass (kg)

	Properties of the mixture
Geltime at 25°C, 100 g, min	25-50
Density at 25 °C, g/cm ³	1,46-1,51
Initial viscosity at 25 °C, mPas	900-1600
Pot life: Untill doubling of viscosity at 25°C, 100 g, min	appr. 11
Hardening time at room temperature, hours	appr. 24
Full hardening at room temperature, days	appr. 7
Suggested condition of hardening	room temperature: +5°C-+25°C humidity: 45-55 % *

* **Notice!** In case of humidity higher than 55-60% bubbles may arise in castings, therefore application in such conditions is not recommended .

	Properties of the hardened material
Tensile strength , N/mm ²	>20
Elongation at break, %	>10
Bending strength, N/mm ²	min. 10
Shore D hardness, 15 s	73-75
Water absorption (at 25°C), 24 hours, %	0,15
Specific volume resistivity, Ohmxcm	>10 ¹³
Specific surface resistivity, Ohm	>10 ¹²
Dielectric strength (at 25°C), kV/mm	>18
Combustibility, grade	V-0/4mm

Information on application

1. In case of Automatic (powered) application:

- According to the machine specific instructions

2. In case of manual application:

- During mixing the temperature of the components should be between 20-25 °C.
At higher temperature the gel time shortens and the warming during bonding increases, that makes work more difficult.
- Casting process should be begun by preparing the workpieces in a quantity, that is casted with resin obtained by one mixing during max. 15 minutes.



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- Component „A” should always be stirred up thoroughly before use to avoid possible sedimentation.
- Prescribed mixing ratio has to be respected at every mixing.
- After pouring together, the two components have to be mixed accurately till receiving absolute homogeneity.
- For cleaning the tools and brushes Vilepox H-3 should be used.

Labour safety information

During work: Closed working-clothes, safety glasses and gloves have to be worn.

Skinprotection: A skin-protective cream has to be applied on hands before starting work.

Removing the material from the skin: The material has to be absorbed with a dry clothes or paper and the skin has to be washed with soapy warm water and dried, then creamed with a protective cream afterwards. The dirty paper or clothes used for absorption should be disposed to a plastic container or sack.

Ventilation: Give adequate ventilation to the premises where the product is stored and/or handled. Workers should avoid breathing in the vapours.

First-aid: In case the material gets to the eyes, they should be rinsed thoroughly with water for 15 minutes and the worker should see a doctor as soon as possible. From skin the material should be removed as above. Contaminated clothes should be taken off immediately. In case somebody feels unwell after breathing in vapours he has to be taken on open air and see a doctor as soon as possible.

Labour safety and environmental information is detailed in the „Safety data sheets” of the product.

The information contained in this data sheet has been collected on the basis of our best engineering knowledge, however, it is not intended to provide any legal commitment.

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Vilepox U-461_40 ENG 2



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