TECHNICAL DATA SHEET

VILEPOX® UHF-1

A two-component, elastic casting resin system hardening at room-temperature

Application:

A system used for making elastic potting of electromagnets, transformers, capacitors and for elastic castings. Good for making large castings as well, depending on the shape and construction upto 100-kg mass of resin.

Characteristics:

- Excellent and durable mechanical resistance and elasticity at room temperature Mechanical resistance and elasticity hardly changes upto appr. 140°C.
- Excellent resistance to low temperature upto –40°C
- Excellent dielectric properties from -40°C upto + 120 °C.
- Excellent thermal shock resistance
- Good thermal conductivity
- Low reactivity, castings hardly warm up during bonding Good application properties

Technical properties of the components:

	VILEPOX® UHF-1 „A”	VILEPOX® UHF-1 „B”
Description	A special mixture of oligomer free of solvents with pigments and fillers.	A special, polyamin based hardener with inorganic fillers
Appearance	coloured liquid*	viscous liquid
Density, g/cm^3 25 °C	1,04 – 1,18	2,30-2,37
Viscosity at 25 ºC, mPas	5000-9000	2000-5000
Non-volatile matter content, %:	> 99,8	>99,8
Flashpoint, °C	> 180	> 170
Shelf-live	min. 9 months**	min. 9 months
Storage	in a dry room, far away from heating in original airtight containers at +5-+20 °C	
Inflammability	III. grade	III. grade
Packaging	metallic can	metallic can
Dangerous disintegration products	during burning toxic gases and vapours get generated e.g. carbon monoxide, carbondioxide, nitrogen oxides	

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* Regular range of colours: cc.RAL 3013 oxidred and cc. RAL 9017 black
** sedimentation of fillers is allowed

Specification of the mixture

Mixing ratio:

VILEPOX® UHF-1 component"A" 100 parts of mass (kg)
VILEPOX® UHF-1 component"B" 50 parts of mass (kg)

	Properties of the mixture:
Geltime at 25 °C, 100 g, min	70-110
Density at 25°C, g/cm^3	1,20 – 1,40
Initial viscosity at 25 °C, mPas	8000 – 15000
Potlife: Time till reaching double viscosity, 50 g, 25°C, min	appr. 20
Hardening time at room-temperature , hours	appr. 24
Time of full hardening at room-temperature, days	appr. 7
Suggested circumstances of hardening	room-temperature: +5°C-+25°C humidity : 50-60 % *

	Properties of the hardened material
Tensile strength, N/mm^2	appr. 9
Elongation at break, %	min. 200
Shore A hardness, 15 s	81-87
Shore D hardness, 15 s	29-32
Specific volume resistance, , cm	min.10^{12}
Specific surface resistance,	min.5x10^{12}
Loss factor tgδ, 1 kV, at 25°C	appr. 450x10^{-4}

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Loss factor tgδ, 3 kV, at 120°C	appr. $480x10^{-4}$

Labour safety information

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

Information on application

-During mixing the temperature of the components should be between 15-25 °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 can be casted with resin obtained by one mixing within appr. max. 20 minutes.
-Component „A" should always be stired 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.
- Mixture should be used within potlife. Material of increased viscosity or with begun gelling must not be used.
-For cleaning the tools and brushes Vilepox H-3 should be used.

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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