



TECHNICAL DATA SHEET

VILEPOX[®] DTK-17 casting resin system Temporary data sheet

Field of application: A two-component, casting and potting system hardening at room temperature without solvents. Casting and potting of parts of different size. Ideal for casting small magnets, transformers, other parts. Final properties can be achieved by heat curing in a shorter time.

Characteristics:

- free of halogens
- excellent mechanical properties
- excellent chemical properties
- excellent dielectric properties
- good thermal conductivity
- good thermal resistance
- convenient application properties
- a system free of solvents
- can be degassed at very low vacuum pressure

Specification of the components:

Properties	Standard	Unit	Value	
			Vilepox [®] DTK-17 component "A"	Vilepox [®] DTK-17 component "B"
Description	-	-	Modified epoxy resin containing inorganic fillers, free of solvents	Low viscosity modified polyamines, free of solvents.
Appearance	HSZ 003	-	light grey liquid *	yellow, clean, transparent liquid
Density at 25 °C	HSZ 004 (ISO 1675)	g/cm ³	1,81 – 1,86	0,99 – 1,03
Viscosity at 25°C	HSZ 010 (ISO 2555)	mPas	50 000 – 60 000	1000 – 2000
Viscosity at 65°C	HSZ 010 (ISO 2555)	mPas	1500 – 2000	-
Storage	-	-	in tightly closed, original containers at 5-25°C, in a dry place far from heaters	
Shelf-life	-	month	min. 9 **	min. 12
Packaging ***	-	kg	30	6
Flammability	-	class	III.	III.
Packaging	-	-	metal can	metal can

* On request other colours are also available

** As sedimentation of fillers may occur, the material has to be mixed thoroughly before use

*** On request other packaging is also available



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Specification of the mixture:

Mixing ratio:

VILEPOX® DTK-17 component „A”	100	parts of mass (kg)
VILEPOX® DTK-17 component „B”	20	parts of mass (kg)

Properties	Standard	Unit	Value
Gel time at 25°C, 100g,	HSZ 001	min	300 – 340
Initial viscosity at 25 °C	HSZ 010 (ISO 2555)	mPas	18 000 – 22 000
Density at 25 °C	HSZ 004 (ISO 1675)	g/cm ³	1,58 – 1,63
Hardening time at room temperature	-	hours	appr. 24
Time of complete hardening at room temp,	-	days	appr. 7

Hardening can be accelerated by heating. **Suggested curing conditions: 60 min, 80 °C***

*Speed of hardening depends on the thickness of the resin

Properties of the hardened material:

Properties	Standard	Unit	Value
Thermal conductivity	DIN VDE 0304	W/m·K	> 0,60
Bending strength	ISO/ R178	N/mm ²	> 60
Shore D hardness, 15 s	ISO 868	-	88 – 92
Water absorbtion, 25°C, 24 hour	ISO 62	%	max. 0,15
Specific volume resistivity	IEC 93	Ω x cm	>5 x10 ¹²
Specific surface resistivity	IEC 93	Ω	>5 x10 ¹⁴

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. Afterward it has a protective cream has to be used. The dirty paper or clothes used for absorbtion should be disposed to a plastic container or sack.

Ventilation: The working place has to be ventilated 3-5 times an hour. Workers should avoid breathing in the vapours.

First-aid: In case the material gets into 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 of 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.



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Information on application

1. In case of manual application:

- During mixing the temperature of the components should be between 15-25 °C.
- Mixing ratio has to be respected at every mixing.
- After pouring them together the components have to be mixed accurately till receiving absolute homogeneity and applied as soon as possible.
- Component „A” should always be mixed up properly to eliminate any sedimentations. After that the measured quantity of comp. „A” should be poured into a clean pot and the calculated quantity of component „B” can be added afterwards.
- Mixture should be used within potlife. Material of increased viscosity or with gelling parts must not be used.

2. In case of automatic dosage:

- According to the instructions of the equipment.

Cleaning of tools: 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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