



TECHNICAL DATA SHEET

VILEPOX[®] DTK-12 Casting resin system

Application: An epoxy resin system of high reactivity for casting and potting parts in electrical and telecommunication industry. Can be used at low temperature as well (above +5°Ct).

Benefits:

- excellent dielectric properties
- excellent mechanical properties
- excellent chemical resistance
- good thermal conductivity
- wide field of application
- halogen-free system
- solvent-free system

Specification of the components:

	Vilepox [®] DTK-12 „A”	Vilepox [®] DTK-12 „B”
Characteristics	Modified epoxy resin containing inorganic fillers, free of solvents	A low viscosity, modified amin based, free of solvents hardener, hardening at room-temperature
Appearance	coloured liquid*	yellowish-brown liquid
Density, g/cm³ (at 25 °C):	1,62-1,70	1,05-1,10
Viscosity, mPas, at 25°C:	5000-10000	3400-5000
Flash-point, °C	>100	200
Non-volatile matter content, %:	>99	99,8
Shelf-life	min. 9 months**	min. 12 months
Storage	In a dry place in original, tightly sealed cans at +5-+20 °C	
Flammability	III. grade	III. grade

* Standard range of colours: cc. RAL 3013 red, cc. RAL 6002 green, cc. RAL 9017 black
On request other colours are also possible.

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



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Technical properties of the mixture

Mixing ratio:

VILEPOX® DTK-12 component „A”	100	parts of mass (kg)
VILEPOX® DTK-12 component „B”	8	parts of mass (kg)

	Properties of the mixture
Geltime (100 g, at 25°C, min)	20-40
Initial viscosity at 25 °C, mPas)	8000-12000
Potlife: Time till reaching double viscosity (50 g, 25°C, min)	appr. 25
Hardening time at 25°C, hours	appr. 24
Time of full hardening at 25°C, days	7

	Properties of the hardened material
Density at 24 °C, g/cm ²	1,55-1,60
Bending strength , N/mm ²	min. 60
Impact-bending strength , kJ/mm ²	min. 8
Tensile strength, N/mm ²	min 40
Shore D hardness	87-89
Martens value*, °C	min. 55
Water absorbtion at 25°C, %	max. 0,4
Dielectric strength (at 25°C), kV/mm	min. 18
Specific surface resistivity, Ohm	min. 10 ¹⁴
Specific volume resistivity, Ohmxcm	min. 10 ¹⁴

Tests should be done after the min. 7-day conditioning-time.

* Martens-value can be increased with post-curing. (e.g. 80°C/1 óra).

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 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 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 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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Basic information on application

- During mixing the temperature of the components should be between 15-25 °C.
- Casting process should be begun by preparing the workpieces in a quantity, that is casted with resin obtained by one mixing during the pot-life .
- Both component „A” and „B” 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.
- Using material after potlife, that is warmed up and thickened is forbidden.
- For colouring Vilepox colour-paste should be used. Add it to comp. A in an amount of 1-4 %.
- For cleaning the tools and brushes Vilepox H-1 should be used.

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.

Vilepox® DTK-12 ENG 3.

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