



TECHNICAL DATA SHEET

Vilepox® DT-414M Casting resin system

Application: As a system for potting and casting of small and medium-sized transformers, capacitors, cable links etc. It gives the advantage of wide range of application.

Characteristics:

- very good dielectric properties
- very good mechanical properties
- very good thermal-shock resistance
- good thermal conductivity
- good processibility

Specification of the components

	Vilepox® DT-414M „A”	Vilepox® DT-414M „B”
Characteristics	modified, solvent-free epoxy resin with fillers, pigments and additives	Special hardener with fillers, pigments and additives
Appearance	coloured liquid *	coloured liquid
Density, g/cm³ (at 25 °C):	1,65-1,75	2,05-2,15
Viscosity, mPas (at 25°C	3000-6000	5500 - 8000
Flashpoint, °C		>110
Non-volatile matter content, %	99,8	99,8
Shelf-life	min. 12 months**	min. 12 months
Storage	in a dry room, far away from heating in original airtight containers at +5-+20 °C	
Inflammability	III. grade	III. grade

*Standard range of colours: cc. RAL 3013 red, cc. RAL 6002 green, cc. RAL 9017 black

Other colours are also possible on request.

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



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Specification of the mixture

Mixing ratio:

VILEPOX DT-414M component „A”	100,0 parts of mass (kg)
VILEPOX DT-414M component „B”	50,0 parts of mass (kg)

	Properties of the mixture
Initial viscosity, mPas (at 25 °C)	3000 - 6000
Pot life at 25°C, minutes	appr.40
Gel time, 100g, minutes (at 25 °C)	appr. 60
Hardening time at room-temperature, hours	appr. 24
Time of full hardening at room-temperature, days	7

Suggested conditions of hardening

Room temperature, °C	+10 - +25
Humidity, %	50 – 65

	Properties of the hardened material
Density at 20 °C, g/cm²	1,75 – 1,88
Tensile strength , N/mm²	min. 40
Compression strenght, N/mm²	min. 75
Shore D hardness	60
Dielectric strength at 25°C kV/mm	min. 20
Water absorbtion, at 25°C, %	kb. 0,4
Coefficient of linear thermal expansion, 1/ C°	appr. 127x10 ⁻⁶
Thermal conductivity λ, W/mK	0,18
Specific surface resistivity, Ohm	min. 10 ¹³
Specific volume resistivity, Ohmxcm	min. 10 ¹⁴

(Tests should be done after a 7-day conditioning at room-temperature)

Labour safety information

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

Skin-protection: 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.



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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.

Physiologically the hardened material is harmless. 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 20-25 °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 (max. 50 minutes).
- 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 and used as soon as possible.
- Because of heat evolution during bonding of the resin the mixture warms up. Pay attention to avoid overheating.
- For cleaning the tools and brushes Vilepox H-1 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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