




TECHNICAL DATA SHEET

VILEPOX[®] EG-55/ 41 Fire retardant casting and potting resin Temporary data sheet

Field of application:

A two-component, fire-retardant casting and potting system hardening at room temperature without solvents. Casting and potting of parts of different size.

Characteristics:

- fire retardant V-0 class according to UL-94
- with UL certification 
- H thermal class, 180 °C
- free of halogens
- excellent mechanical properties
- excellent chemical properties
- excellent dielectric properties
- good thermal conductivity
- good thermal resistance
- convenient application properties
- both for manual and power-driven application
- a system free of solvents
- available both in natural and coloured version

Specification of the components

	Vilepox [®] EG-55/41 „A”	Vilepox [®] EG-55/41 „B”
Characteristics:	Modified epoxy resin containing inorganic fillers, free of solvents	Modified poliamines, free of solvents.
Appearance:	light grey liquid *	yellow, clean, transparent liquid
Density at 25 °C, g/cm³	1,94-1,98	0,93-0,97
Viscosity at 25°C, mPas	10 000-14 000	50-70
Shelf-life	min. 9 months**	min. 12 months
Storage	in tightly closed, original containers at 5-25°C, in a dry place far from heaters	
Flammability	III. grade	III. grade

* On special request other colours are also available

** 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 EG-55/41 component „A”

100,0 parts of mass (kg)

Vilepox EG-55/41 component „B”

5,0 parts of mass (kg)

	Properties of the mixture
Initial viscosity at 25 °C, mPas	4000-5000
Density at 25 °C, g/cm ³	1,83-1,88
Pot life at room temperature (doubling of viscosity), min.	appr. 50
Gel time at 25°C, 100g	appr. 180
Hardening time at room temperature, hours	appr. 24
Time of complete hardening at room temp, days	7

	Properties of the hardened material
Bending strength, N/mm ² :	min. 60
Shore D hardness,	>82
Linear thermal expansion coefficient, α_L (25-100 °C)	$85 \cdot 10^{-6} \cdot K^{-1}$
Shrinkage, V/V %	2
Elongation at break, %	1,3
Thermal conductivity, W/(mK)	0,72
Water absorbtion, at 25°C, %	max 0,15
Specific surface resistivity Ohm	$> 5 \times 10^{14}$
Specific volume resistivity, Ohmxcm	$>5 \times 10^{12}$
Fire retardancy (6 mm)	V-0

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. At higher temperature gel time decreases, that makes application more difficult. Apart from that warming during bonding increases, that may cause many failures.

- Prescribed 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.

-Casting process should be begun by preparing the workpieces in a quantity, that can be casted with resin obtained by one mixing within max. 3 hours (at room temp.).

- Component „A” should always be mixed up properly to eliminate any sedimentations. After that the necessary amount of comp. „A” should be poured into a clean pot and the calculated amount of component „B” can be added afterwards.

-Mixture should be used within potlife. Material of increased viscosity or with begun gelling must not be used.

2. In case of power-driven application:

- according to the instructions of the equipment.

For cleaning tools and brushes Vilepox H-1 should be used.

UL registration number: **E338747**

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 EG-55/41 ENG 1.