



TECHNICAL DATA SHEET

Vilepox EG-55 Fire-retardant casting system

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
- 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

Specification of the components

Vilepox EG-55 component „A”

Characteristics: Modified epoxy resin containing inorganic fillers, free of solvents.

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| • Appearance: | light grey liquid* |
| • Density, g/cm ³ (at 20 °C): | 1,65-1,75 |
| • Viscosity, mPas (at 25 °C): | 25000-30000 |
| • Flash point, °C: | >100 |
| • Non-volatile matter content, % : | min. 99,0 |

* on special request other colours are also available

Packaging: In metal containers of 24 kg loading mass. For special request other packaging is also available.

Storage: 9 months** (in tightly closed, original containers at 5-25°C, in a dry place far from heaters).

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

Flammability: III. grade

VILEPOX EG-55/7 component „B”

Characteristics: Mixture of organic polyamines, free of solvents.

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|--|-----------------------------------|
| • Appearance: | yellow, clean, transparent liquid |
| • Density, g/cm ³ (at 20 °C): | 0,93-0,97 |
| • Viscosity, mPas (at 25 °C): | 400-700 |
| • Colour by Gardner | max. 3 |

Packaging: In metal containers of 3,6 kg loading mass. For special request other packaging is also available.

Storage: min 1 year (in tightly closed, original containers at 5-25°C, in a dry place far from heaters).

Flammability: III. grade



TECHNICAL DATA SHEET

Specification of the mixture

Mixing ratio:

Vilepox EG-55 component „A”	100,0 parts of mass (kg)
Vilepox EG-55 component „B”	15,0 parts of mass (kg)

Properties of the mixture:

• Initial viscosity at 25 °C, mPas :	4000-6000
• Pot life at room temperature, min:	appr. 60
• Gel time at 25°C, 100g, min:	appr. 80
• Hardening time at room temperature, hours:	appr. 24
• Time of complete hardening at room temp, days:	7

Properties of the hardened material:

• Compressive strength, N/mm ² :	min. 80
• Bending strength, N/mm ² :	min. 40
• Shore D hardness (D) :	76-80
• Dielectric strength at 25°C kV/mm:	min. 18
• Water absorbtion, at 25°C, %	0,2-0,3
• Dissipation factor, tg δ (1 kHz) at 20°C:	max. 0,27
at 80°C:	max. 0,7
• Specific surface resistivity Ohm:	min. 5x10 ¹⁴
• Specific volume resistivity, Ohmxcm:	min. 5x10 ¹³
• Martens value, °C:	68-75
• Breakdown strength, kV/mm at 25°C:	min. 24
• Combustability	V- 0, 6 mm

If your have any further questions in connection with our resin systems do not hesitate to ask our experts.

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.



TECHNICAL DATA SHEET

Information on application

During mixing the temperature of the components should be between 20-25 °C. At higher temperature the gel time shortens and the warming during bonding increases, that makes work more difficult. At lower temperature the gel time is longer and viscosity is higher, warming during bonding decreases.

Casting process should be begun by preparing the workpieces in a quantity, that is casted by one mixing during max. 60 minutes.

Component „A” 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.

Because of heat evolution during bonding of the resin the mixture warms up. Therefore the mass of the material mixed at the same time has to be below 28 kg.

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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Page: 3/3