



# TECHNICAL DATA SHEET

## VILEPOX<sup>®</sup>/VILTER<sup>®</sup> systems

### Vilepox<sup>®</sup> EG-55/823

## 2-component, fire-retardant epoxy resin system hardening at room temperature

### Temporary data sheet

#### Application:

Encapsulation sealing and potting of small transformers, capacitors, voltage regulators, filters and other electronic and electrical components.

#### Characteristics:

- fire-retardant, V-0 type according to UL-94 
- with UL certification
- „B” thermal class type, 130 °C
- excellent mechanical properties
- excellent chemical properties
- excellent dielectric properties
- good thermal conductivity
- good thermal resistance
- convenient application features both manually and power-driven application
- solvent and halogene free system
- satisfies the requirements of RoHS

#### Specification of the components:

CHARACTERISTICS	STANDARD	UNIT	VALUE	
			VILEPOX EG-55/823 component „A”	VILEPOX EG-55/823 component „B”
Description	-	-	mixture of modified epoxy resin and fillers*	modified cycloaliphatic polyamine
Appearance	HSZ 003	-	light-grey or coloured liquid**	yellowish-brown, clear transparent liquid
Density at 25 °C	HSZ 004 (ISO 1675)	g/cm <sup>3</sup>	1,69 - 1,73	0,99 - 1,03
Viscosity at 25 °C	HSZ 010 (ISO 2555)	mPas	5500 - 8500	50 - 100
Solid content	ISO 3251:2003	%	> 99	> 99
Flash point	ASTM D93	°C	>165	>100
Storage conditions	-	-	in tightly closed, original containers at 5-25 °C, in a dry place far from heaters	
Storage stability	-	month	min. 12	min.12
Packaging***	-	kg	30	4,2
Transport	-	-	metal can	metal can
Inflammability	-	grade	III.	III.



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\*Material has to be mixed thoroughly before use.

\*\* Other colours are also available on request.

\*\*\*Other packaging is also available on request.

## Specification of the mixture:

Mixing ratio: **VILEPOX EG-55/823 component „A”** **100 parts of mass (kg)**  
**VILEPOX EG-55/823 component „B”** **15 parts of mass (kg)**

CHARACTERISTICS	STANDARD	UNIT	VALUE
Gel time at 25°C, 100 g	HSZ 001	minutes	100 - 140
Density at 25 °C	HSZ 004 (ISO 1675)	g/cm <sup>3</sup>	1,55 - 1,60
Initial viscosity at 25 °C	HSZ 010 (ISO 2555)	mPas	1000 - 2000
Potlife: Doubling of viscosity, 100 g, at 25 °C	HSZ 010 (ISO 2555)	minutes	appr. 30

## Specification of the hardened material:

CHARACTERISTICS	STANDARD	UNIT	VALUE
Thermal conductivity, $\lambda$	DIN VDE 0304	W/m·K	0,73
Glass transition temperature, Tg (DSC)	ISO 11357-2	°C	50 - 60
Shore D	ISO/ R527	-	88 - 93
Dielectris strength at 25°C	IEC 243	Kv/mm	> 12
Surface resisitivity	IEC 93	$\Omega$ (Ohm)	> 10 <sup>15</sup>
Volume resisitivity	IEC 93	$\Omega$ x cm	> 10 <sup>14</sup>



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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.
- Casting process should be begun by preparing the workpieces in a quantity, that is casted with resin obtained by one mixing within potlife (doubling of viscosity).
- 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.

### 2. In case of automatic application:

- According to the machine specific instructions.

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

## 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 absorption should be disposed to a plastic container or sack.
- **Ventilation:** Give adequate ventilation to the premises where the product is stored and/or handled. 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 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.
- **Labour safety and environmental information is detailed in the „Safety data sheets” of the components.**

UL registered 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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