



TECHNICAL DATA SHEET

VILEPOX® EG-580 Fire-retardant 3K resin system Temporary data-sheet

Field of application: A 3-component, fire-retardant, baking resin-system of excellent heat-resistance for laminates with glass- or carbon fibre and for casting of pre-assembled equipments, such as dry-transformers, insulators, reductors etc.

Benefits:

- good wetting of fillers and glass- or carbon fibre
- without fillers it is V-0/10mm fire-retardant acc. to UL 94, in case of mixtures containing inorganic fillers fire-retardancy improves further
- excellent dielectric properties
- excellent mechanical properties
- excellent thermal resistance, H thermal-class
- very good impact resistance
- convenient application features
- range of colours: RAL 3013, RAL 8016, RAL 9017
- a system free of solvents

Specification of the components

FEATURES	NORMS	UNITS	VALUES		
			VILEPOX EG-580 component „A-1”	VILEPOX EG-580 component „A-2”	VILEPOX EG-580 component „B”
Characteristics	-	-	Special fire-retardant fillers and additives in modified Bispheno F epoxy resin	Mixture of special reactive solvents	Special acid anhydride based hardener with additives and accelerator
Appearance	HSZ 003	Vizuális	coloured paste*	colourless or slightly yellowish thin liquid	yellowish-brown liquid
Density at 25 °C	ISO 1675	g/cm ³	1,50-1,55	1,02-1,08	1,20-1,25
Viscosity at 25°C	ISO 2555	mPas	15000-25000 (slightly tixotropic)	10-50	250-500
Storage	-	°C	in tightly closed, original containers at 5-25°C, in a dry place far from heaters **		
Shelf-life at room-temp.	-	%	min. 6 months	min. 6 months	min. 6 months
Standard packaging ***	-	kg	29,3	4,1	17,7
Inflammability	-		III. grade	III. grade	III. grade

* Standard range of colours: RAL 3013, RAL 8016.

** During storage sedimentation of fillers may occur in component A-1, therefore the material has to be mixed thoroughly before use.

*** On special request other colours are available.



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Specification of the mixture

Mixing ratio:	VILEPOX EG-580 component „A-1”	88 parts of mass (kg)
	VILEPOX EG-580 component „A-2”	12 parts of mass (kg)
	VILEPOX EG-580 component „B”	53 parts of mass (kg)

Properties of the mixture:

	NORM	UNIT	VALUE
Gel time, 100 g, at 120°C	HSZ 001	min	39-51
Density of the mixture at 25 °C	ISO 1675	g/cm ³	1,35-1,38
Initial viscosity at 25 °C	ISO 2555	mPas	900-1400
Potlife: Till reaching double viscosity, 100 g, at 25 °C Till reaching tripple viscosity, 100 g, at 25 °C	ISO 2555	hours	appr. 16 appr. 24

Properties of the hardened material:

Curing conditions****: 2 hours at 80 °C + 4 hours at 160 °C

	NORM	UNIT	VALUE
Bending strength	ISO/ R178	N/mm ²	min. 80
Tensile strength	ISO/ R527	N/mm ²	min.45
Shore D hardness, (15 s)	ISO 868	-	86-89
Martens value	ISO 14577	° C	min. 90
Water-absorbtion at 25°C	ISO 62	%	max. 0,2
Loss-factor, : at 25 °C 1 kHz at 120 °C 1 kHz:	IEC 250:1969	tg δ	max. 1,5 x 10 ⁻² max. 1,5 x 10 ⁻²
Dielectric strength at 25°C	IEC 243	Kv/mm	min. 12
Specific surface resistivity	IEC 93	Ω (Ohm)	min. 10 ¹⁵
Specific volume resistivity	IEC 93	Ω x cm	min. 10 ¹⁴
Arc resistance	IEC 1330	s	min. 100
Fire-retardancy	UL-94	-	HB

**** Curing conditions may vary, but temperature must stay above 100 °C. The above parameters are valid in case of given curing conditions.

Labour safety information



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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 absorption 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 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 product.

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.

Vilepox EG-580 ENG2

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