



TECHNICAL DATA SHEET

VILEPOX® KT-5 Outdoor baking resin system for casting

Field of application:

A baking system used for outdoor electroinsulating castings, transformers, voltage- and current transformers, isolators.

Characteristics:

- low viscosity
- good mechanical properties
- good chemical properties
- good dielectric properties
- excellent UV resistance
- excellent thermal resistance
- excellent flowing properties even in case of high content of fillers quartz flour.
- free of solvents

Technical properties of the components:

	VILEPOX® KT-5 „A”	VILEPOX® KT-5 „B”	VILTER D	NORMS
Characteristics	A low viscosity, cycloaliphatic epoxy resin free of solvents.	Low viscosity liquid, a mixture of organic acidanhydride and additives.	accelerator based on liquide tertiary amine.	
Appearance	colourless, transparent liquid	colourless liquid	yellowish, transparent liquid	HSZ 003
Density, g/cm³ at 25 °C	1,18 - 1,25	1,12-1,18	0,88-0,92	HSZ 004 (ISO 1675)
Viscosity, mPas at 25 °C	500-1000	50-150	4- 15	HSZ 010 (ISO 2555)
Outflow (Mp-6, 25 °C,s)	55-75			HSZ 006
Flash-point, °C	>165	min.162	54	ASTM D93
Non-volatile matter content, %	min. 99,8	min. 99,5		ISO 3551:2003
Shelf-life	min. 12 months	min. 12 months	min. 12 months	
Storage	in a dry place, far away from heating in original airtight containers at +5-+20 °C			
Inflammability	III. grade	III. grade	III. grade	



TECHNICAL DATA SHEET

Technical properties of the system:

Mixing ratio:

VILEPOX® KT-5 component „A”	100,0 parts by mass (kg)
VILEPOX KT-5 component „B”	100,0 parts by mass (kg)
VILTER D	1,0 part by mass (kg)*
Quartz flour (silanized)	300,0 parts by mass (kg)

	Properties of the mixture	NORMS
Initial viscosity, mPas (at 25 °C)	250-350	HSZ 010 (ISO 2555)
Geltime at 120°C, 100 g, min	15-30	HSZ 012
Geltime at 80°C, 100 g, min	42-63	HSZ 012
Potlife:		HSZ 010 (ISO 2555)
untill doubling of viscosity, 100g , 25 °C, hours	appr. 7	
untill tripling of viscosity, 100g , 25 °C, hours	appr. 14	

	Properties of the hardened material	NORMS
Curing circumstances	2 hours/100°C + 16 hours/140°C***	
Density at 25 °C, g/cm ³	1,7-1,8	HSZ 004 (ISO 1675)
Bending strength, N/mm ²	150-165	ISO 178
Impact strength, kJ/mm ²	8-9	ISO 179
Tensile strength , N/mm ²	90-100	ISO 527
Elongation at break, %	1,7-1,9	ISO-527
Elastic modulus at tearing, N/mm ²	10000-11000	ISO-527
Heat distortion temperature , HDT, °C	90-95	ISO 11357-2
Linear coefficient of thermal expansion, 10 ⁻⁶ /K	35-50	DIN 53752
Water absorption, at 25°C, %: (50x50x4 mm-es próbatest, 10 nap)	0,1-0,2	IEC 60062
Dielectric strength at 25°C, kV/mm	19-22	IEC 60243
Dissipation factor, tg δ (50 Hz) at 25°C %	2	IEC 60250
Arc resitance, s	185-190	IEC 61621/97

*The quantity of the accelerator and the curing conditions may be different, and then the technical properties may also vary accordingly.

** For perfect wetting and outdoor resistance silanized quartz flour should be used, e.g. produced by Quarzwerke GmbH Sibond W12 EST. The proportion of the resin and quartz flour may vary depending on the type of quartz flour.

*** The actually necessary curing time is longer by the time needed for warming up the work-pieces. The curing time should be determined individually for each element, depending on its size, shape, specific weight and dryer type.



TECHNICAL DATA SHEET

Safety Precautions

Labour safety and environmental information is detailed in the „Safety data sheets” of the product.

This brochure was compiled according to our best knowledge, but no legal obligation can be based on its content.

Vilepox KT-5 ENG 4.

September, 2019