

## 4. IMPREGNATING RESIN VUPOXY/ Epoxy resin/ VUPOXY E - 1K



CABLES



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### Application:

Trickling resin VUPOXY E - 1K is suitable for trickling method impregnation. for mechanical and thermal stressed windings of rotors, generators and high speed rotating electrical machines for domestic and hand appliances with thermal class F – H.

### Description:

Trickling resin VUPOXY E - 1K is one – component impregnating resin based on modified epoxy resin. It is typical for its low level of volatile substance – „VOC = 0“, an excellent mechanical strength, very good penetration into the winding, short curing time at 160 °C. By 1K E-2007 impregnated windings have an excellent mechanical strength, and a considered resistance to vapor solvents, transformer oils and refrigerator liquids.

### Processing data:

Density (DIN 53 217)	20 °C	[kg/m <sup>3</sup> ]	1150-1170
Viscosity	23 °C	[mPa.s]	700-900
Shelf- life	Max. 25 °C	[months]	min. 6
Flash point (AP)		[°C]	Min.140°C
Gel-time <sup>1</sup>	130 °C	[min]	5 - 8
Gel-time <sup>1</sup>	160 °C	[min]	2 - 3
Curing time <sup>4</sup>	160 °C	[h]	15 - 30
Effect of resin on enameled wires <sup>5</sup> (LCIA, LCDA)			suitable



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### Properties after cure:

Curing of test specimen		140 °C	[h] 2
Electric strength <sup>2,5</sup>	23 °C after 96 hrs at 92 % relative humidity at 23 °C	[kV/mm]	80-220 60 - 70
Dissipation Factor	23 °C 130 °C	[%]	0,5 1,2
Mechanical Strength	23 °C 155 °C 180 °C Twisted coil test <sup>7</sup>	[N]	600 - 640 94 - 97 87 - 91

1. DIN 16 945 Method A

2. DIN 46 448 Blatt 1

3. from reached temperature 130 °C in winding

4. STN 67 31 50 part. 11, met. B after 60 min at 60 °C

5. 2 h at 100 °C + 2 h at 130 °C

6. Test specimens A2, cylindrical electrode ø6 mm

7. IEC 61033 met. A,

### Packing and storage:

VUPOXY E – 1K impregnating resin is delivered in clean, non returnable drums in the amount agreed between the producer and client. The product has to be stored in tightly closed drums at temperature max. +25 °C.

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