

1. IMPREGNATING RESINS **VUPOS/** Polyesterimide in styrene/ **NK 50/90 - W**

WHITE COLOR



CABLES



IMPREGNANTS



WIRES



RESEARCH



Application:

Two component impregnating resin NK 50/90 - W is suitable for continuous and discontinuous impregnation of ballast transformers of thermal class H performed at the atmospheric pressure or under the vacuum.

Polyesterimide in styrene

Characteristics:

Impregnating resin NK 50/90 - W is a solution of unsaturated polyesterimid in styrene. Before processing it must be diluted by styrene to the flow time 80 s and then mixed with a hardener TBP in the mass ratio 100:1. Curing time is 2 hours at the temperature 140 °C after the winding has reached this temperature. Elasticity of varnish film after curing is very high, so as bonding strength of winding at elevated temperatures. It is resistant to vapour solvents, transformer oils and refrigerator liquids.

Processing data:

Flow time(DIN Cup 4)	23 °C	[s]	60 - 120
Shelf- life	max. 23 °C	[months]	min. 6
Flash point (Cleveland)		[°C]	32
Gel-time ¹	100 °C	[min]	7 - 13
Pot life of impregnating resin with hardener by 10 % throughput of tank volume per week		max. 23 °C	Unlimited
Effect of resin on enamelled wires ²			OK



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F-11.1.22-01-2/11en

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Properties after cure:

Curing of test specimen		140 °C	[h] 2
Ability to cure in considerable thickness ³			I 1.1.1. ⁸ 0 1.1.1.
Electric strength ^{3,4}		23 °C 155 °C after 24 h immersion in water at 23 °C	[kV/mm] 70-80 60-70 30-40
Volume resistivity ³		23 °C 155 °C after immersion in water for 7 days at 23 °C	[Ω.m] 10 ¹⁴ 10 ¹¹ 10 ¹³
Twisted coil test ⁶		23 °C 155 °C	[N] >140 >35
Flexibility ⁵ (Mandrel test, 3 mm diameter)		23 °C	no cracks up diameter to angle 180°
Thermal endurance ⁷ Test criterion:		Bond strength 22 N (Helical coil) Breakdown voltage 1500 V (Twisted pairs)*	[°C] 181 [°C] 228

1. DIN 16 945 Method A

2. STN 67 3150 čl. 11, met. B after 60 min at 70 °C

3. DIN 46 448 Blatt 1

4. Test specimens A2, cylindrical electrode ø6 mm

5. IEC 60464-2

6. IEC 61033 met. A, met. C

7. IEC 60216

8. The upper side: S – smooth

The underside : U - non tacky

The interior: I – hard , free of bubbles

* UL test 1446 File E233982 measured on wires MW 35

Packing a storage:

Pigmented impregnating resin is delivered in non - returnable packing, not used for any other type of products. The product has to be stored in tightly closed drums at temperature max. +23 °C.

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FF-11.1.22-01-2/1en

