

WASOL 20



VULAK® WATER SOLUBLE IMPREGNANTS

Characteristic

WASOL 20 is water soluble modified polyester – alkyd varnish with 20% of solid content. It has perfect mechanical parameters and very good stability in the tank. It is an emulsion, low viscous liquid in the color of the ivory (brownish, depending on the light). WASOL 20 can also be prepared in three color versions (yellow, blue or red), the dye does not affect the processing properties and stability of impregnating resin.

Impregnating varnish is characterized by the following properties:

- VOC content approaching zero = low ecological costs
- Absolutely safe and comfortable operation without risk of explosion (non-combustible)
- Without unpleasant odors and negative impacts on human health
- Shorter curing time (more economical)
- During curing, mainly water evaporates that does not belong to air pollutants escapes
- Excellent penetration ability even without vacuum
- Very good adhesion and flexibility
- Form a continuous homogeneous film on the transformer and motor frame
- Perfect mechanical strength
- Good electrical properties

Field of application

WASOL 20 is intended for insulation systems of temperature class F (155 °C) and H (180 °C). It is used for impregnation of low and medium voltage transformers as well as several types of motors.

The most common applications:

- Motors of grass cutters
- Home tool motors
- Welding transformers
- Low and medium sized LV Transformers
- Widely used by repair shops of electric motors, especially stators and transformers

Processing

WASOL 20 is suitable for impregnation by dipping, impregnation under vacuum or VPI impregnation. Exact instructions for processing will be provided depending on the customer's processing method.

Since its stability is very good, it can be preheated to 30 – 40 °C for better penetration of winding. A stainless steel or galvanized container is recommended for this product.

Impregnation can be diluted with demineralized water by the user. Main quality parameter, the PH factor of impregnating varnish is possible to easily measured by pH papers (i.e. litmus paper).

When handling the impregnating resin, follow the safety instructions in the Safety Data Sheet.

CAUTION: Impregnating varnish must not freeze!

Hardening

Hardening conditions:

- 2 hours at 150 °C, or
- 3,5 hours at 135 °C



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Processing properties

Parameter	Standard	Condition	Value	Unit	Description
Density	STN EN ISO 2811-1	23 °C	1020 – 1040	kg/m ³	
Flow time	STN EN ISO 2431	23°C	20 – 40	s	Cup ISO 3
Solid content	STN EN ISO 3251		17,5 ± 2,5	%	1,5 g / 1 hour / 130°C
VOC			0	%	
Stability		1 – 25 °C	min. 12	month	
pH			7 – 8	°C	

Parameters after hardening

Parameter	Standard	Condition	Value	Unit	Description
Electrical strength	STN EN 60243-1	23 °C	182	kV/mm	cylindrical electrodes ø 6 mm
		180 °C	101		
		96 h, 92% rel. hum. at 23°C	256		
Twisted coil strength	STN EN 61 033 art. 2.1 method A	23 °C	189	N	
		180 °C	41		

Packing, storing and manipulation

WASOL 20 is filled into non-returnable, clean, 50 l plastic containers, 200 l plastic drums or in plastic packaging according to the agreement between the manufacturer and the customer. Impregnant should be stored in tightly closed containers in a dry, ventilated place at temperatures from + 1 °C to + 25 °C.

CAUTION: It is necessary to protect it from frost.

The shelf life of the impregnant is 12 months from the date of manufacture.

WASOL 20 is transported in covered vehicles. Packages must be kept upright and secured against shifting. Impregnation must not be exposed to freeze!

CAUTION: Exposure to freeze may result in deterioration of the impregnant!

Impregnating resin is not classified as a dangerous product.

Certificates

- twisted pairs: 180 °C, thermal class H (UL file E233982)

Safety

Disposable packaging after perfect emptying and wiping can be removed as other waste. If emptying is not possible, the packaging is disposed of as hazardous waste.



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NOTE

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