

# LAK 372



VULAK IMPREGNANTS

## Characteristic

LAK 372 is an air drying alkyd system provides tough, impervious, insulating seals in difficult environments. The system dries rapidly in thin film to give very effective sealing off of electrical leakage paths together with excellent noise reduction characteristics.

This product is clear, yellowish-brown liquid. It is characterized by the following properties:

- excellent resistance to transformer oils and moisture
- a low hazard fungicide is included in the varnished enamels, which gives a 0 rating (no growth) fungal resistance
- suited for tropicalisation and for use on equipment working in warm humid climates
- pigmented versions available – LAK 372 RED was subjected to an accelerated corrosion test (Salt spray fog test). The product successfully passed 72 hours continuous exposure with no major surface deterioration observed.
- aerosol versions available

## Field of application

LAK 372 is suitable for insulating systems of temperature class F (155 °C) and H (180 °C). It is suitable for noise reduction in small transformers and moisture protection, anti-tracking and tropicalisation on all types of electrical equipment.

## Processing

Processing method:

- brush
- dip
- spray

Procedure for dip impregnation of smaller components.

1. Thin LAK 372 with T4 thinner such to achieve a desired film build on components.
2. Immerse the components completely into the varnish for 1 – 10 minutes.
3. Drain components for 15 – 30 minutes over the varnish.
4. Cure.
  - a) At ambient: 45 minutes – 2 hours components can be handled, but only 50 – 70% of properties have developed and there is still residue solvent to be eliminated. 24 – 48 hours 95 % of properties are developed and there are only trace quantities of solvent still present within components whereas in the majority of cases this trace of solvent is diffused slowly into the atmosphere causing no further problem, if the components are used or packed in materials such as polystyrene some attack can occur.
  - b) The cure can be accelerated heating the components for 2 – 3 hours at 80 °C will give an equivalent cure to 24 – 48 hours at ambient.

With heavily taped, tightly wound or larger components there is a risk of solvent entrapment. This risk is reduced by using a heat cure process.

The process each customer chooses depends on component size or design, film required, cure temperature and oven efficiency and thus only a guide can be given.

The cure time chosen is dependent on the size and type of component. Typical figures are given.

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

To clean the equipment and work tools from undamaged impregnant it is recommended to use VUKI thinner T5.



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## Curing

- 15 min at 21 °C, touch dry
- 45 – 60 min at 21 °C, hard dry
- 24 – 48 hours at 21 °C, full cured
- 2 – 3 hours at 80 °C, full cured

## Processing properties

Parameter	Standard	Condition	Value	Unit	Description
Specific gravity			0,96 – 0,99	kg/m <sup>3</sup>	Clear version
Flow time	STN EN 60464-2	25 °C	170 – 220	s	Clear version B4 flow cup
Shelf life		21 °C	12	month	
Flash point	STN EN ISO 2592		27	°C	
Non-volatile content	STN EN ISO 3251		40 - 42	%	2g / 1 hour / 150 °C
VOC			60	%	

## Parameters after hardening

Parameter	Standard	Condition	Value	Unit	Description
Dielectric strength	STN EN 60243-1	23 °C 24 h immersion in water	72	kV/mm	6mm cylindrical electrodes
			30		
Time to track	ASTM D2303		222	min	
Flexibility	ASTM D522		pass		5 mm mandrel

## Packing, storing and manipulation

LAK 372 is supplied in non-returnable, clean, metal drums with volume as follow:

25 ltr, 5 ltr tins: Clear, golden.

5 ltr tins: Clear, golden, devolac grey, gentian blue, dark grey, red, white, black, salvameg blue.

400 ml aerosols: Clear, golden, red, dark grey, gentian blue, black.

LAK 372 have to be transported in covered means of freight. Packages must be kept upright and secured against shifting. The product is not classified as dangerous under transport regulations.

Impregnating varnish is to be stored in tightly closed containers in a dry, ventilated place at +1 ° C to + 21 ° C. When the storage conditions are met, the quality of the impregnating varnish is guaranteed 12 months from the date of manufacture.

**CAUTION:** Extreme heat, contamination or exposure to direct sunlight may result in the polymerization and deterioration of the impregnant!

## SAFETY

It is necessary to prevent the product from entering the drainage system.



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## Certification

- thermal class H (UL file E220579)

## NOTE

The information in this document is consistent with our best knowledge of the date of publication. This information can be a subject of revision without prior notice if new knowledge and experience are available. The data provided falls within the normal range of product properties and relates only to the specified material. These data may not apply to materials used in combination with other materials or ingredients or other processes, unless expressly stated otherwise. The data provided should not be used to set limits or used separately as a basis for the sample: they are not intended to compensate for any testing that may be necessary to make a decision as to whether the specific material is suitable for your particular purpose. Because VUKI cannot predict all variants of end-use product conditions, VUKI does not provide guarantees and has no responsibility with respect to any use of this information. Nothing in this publication is considered to be a use or recommendation to violate any patent rights.

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