

5. VARNISHES **VULAK/** Antitracking varnish/ **LAK 372**



CABLES



IMPREGNANTS



WIRES



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General conditions:

LAK 372 - antitracking enamels and varnishes, air drying alkyd, clear, golden, pigmented and aerosol version available. The LAK 372 range of anti-tracking varnishes and enamels provide tough, impervious, insulating seals in difficult environment. The system dries rapidly in thin film to give very effective sealing off of electrical leakage paths together with excellent noise reduction characteristics. The cured product conforms to IEC 464 has an excellent resistance to transformer oils and moisture, and is suitable for use in Class B and F insulating system. A low hazard fungicide is included in the varnishes enamels, which gives a 0 rating (no growth) fungal resistance when tested. This makes the system particularly suited for tropicalisation and for use on equipment working in warm humid climates.

Application:

Suitable for noise reduction in small transformers and moisture protection, antitracking and tropicalisation on all types of electrical equipment.

Specification:

Viscosity	170-220 sees B4 flow cup at 25°C		
Non-volatile content	40 – 42% clear and golden version		
Specific gravity	0,96 – 0,9 clear and golden version		
Flash point	27°C		
Shelf life	12 months at 21°C		
Drying time	Touch dry	15 minutes	
	Hard dry	45-60 minutes	
Full cure	24 hours		

Processing

Method	brush, dip or spray		
Viscosity	Brush	Dip	Spray
	As supplied	Acc. to Workshop practise	thin with thinner
Reducer	Xylen		



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Workshop practice:

Procedure for dip impregnation of smaller components.

1. Thin LAK 372-2000 with T4 thinners 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 dependant on the size and type of component. Typical figures are given.

Cure times:

Time	15 mins	45-60 mins	24-48 hrs	2-3 hrs
Temperature (°C)	21°C	21°C	21°C	80°C
Comment	Touch dry	Components Handleable	Cured	Cured

Properties of cured varnish:

Dielectric strength	ASMD115	72kV/mm
	After immersion in water for 24 hrs	30kV/mm
Comparative tracking index		180
Flexibility		no cracks up to 180°C bending

Health and safety:

Refer to Material Safety Data Sheet available

Packing

25 lts, 5 lts tins, clear, golden



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