

958-372
Technical Data Sheet



PRODUCT DESCRIPTION: MR8008 Insulating Varnish	DATE: 04/96
PRODUCT CODE: MR8008	PAGES: 2

PRODUCT DESCRIPTION

MR8008 is a urethane alkyd type air-drying varnish, especially formulated with a UV trace to allow instant inspection. It is primarily designed for PCB coating but it may also be used for wound component dipping and as a general electrical varnish for humidity protection. The usual application method is by dipping but the varnish may also be applied by spraying or brushing.

The varnish is amber in colour and has a distinct petroleum odour.

MR8008 has been formulated to meet the requirements of DEF STAN 59-47. The viscosity of the material may be adjusted by use of OP9012 Thinners. Although a urethane modified material, MR8008 contains virtually no unreacted isocyanate groups.

APPLICATION

The material may be applied by spray or dip, thinning with Electrolube OP9012 as required.

If applied by dipping, the coating thickness can be adjusted to a certain extent by altering the speed of withdrawal - slower withdrawal speeds give a thinner coating. Use of dipping machines usually gives a superior coating (compared with hand dipping) because it is possible to utilise slower and steadier withdrawal speeds. Two or more thin coats will usually give better coverage than attempting one thick coat. The first coat must be fully cured before the second coat is applied.

Dipping equipment suitable for dipping both PCBs and hybrid circuits is also available from Electrolube.

PCBs or other components must be free of grease, dirt or flux before coating.

TYPICAL PROPERTIES OF SYSTEM

Density	0.90 @ 20°C
Solids Content	50%
Colour	Clear Amber
Thermal Conductivity	~ 0.25W/m K.
Tack Free Time	50 minutes @ 25°C or 10 minutes @ 40°C
Initial Drying Time	5 hours @ 25°C
Complete Cure	48 hours @ 25°C
Threshold Limit Value	100ppm (as White Spirit)

These times will vary with coating thickness. Drying times may be accelerated by use of elevated temperatures - avoid instant use of temperatures above 80°C as this may cause blistering due to too rapid removal of the solvent carrier.

Cont'd ... 2

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HEALTH & SAFETY PRECAUTIONS

The main hazard associated with both **MR8008** and **OP9012** is that they are **FLAMMABLE**, containing white spirit, (Flashpoint 40°C) therefore it is vital the product does not come into contact with naked lights and all sources of ignition.

While its general chemical reactivity is low it can be oxidised by strong oxidising chemicals.

MR8008 exhibits moderate toxicity if taken by mouth or inhaled, and similar toxicity is shown toward skin, eyes and mucous membranes. Ingestion may cause irritation of the mouth, throat and digestive tract causing vomiting and abdominal pain. Significant absorption may cause sleepiness and pulmonary oedema. Inhalation of high vapour concentration can cause intoxication, headache, nausea and in extreme cases coma.

Ensure good ventilation and avoid breathing the vapour. Avoid contact with skin, eyes and do not swallow. Wear goggles or face shield and rubber gloves, and apron if there is a risk of splashing. Keep an eye wash bottle to hand. Take precautions against static electricity and ensure all equipment is properly earthed.

Wash any contamination from the skin thoroughly with soap and water. Eyes should be washed immediately with clean water for at least ten minutes if contaminated. If irritation persists obtain medical attention. Any one affected by inhalation should be moved to fresh air. Should ingestion of the product occur, do not induce vomiting. If person vomits turn over on to face, give them plenty of milk or water. Obtain medical attention. Accidental spillages should be absorbed with sand or earth and removed to a safe place for disposal. Prevent entry into drains. If product has entered the drains the Fire Brigade and Water Authority must be informed at once.

Do not pour material into drains or dispose of indiscriminately. Obtain the services of a Waste Disposal Contractor and send to a registered tip, or burn under controlled conditions in a suitable incinerator.

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