

ELECTRONICS TECHNICAL DATA  
SHEET

ULTIGARD 618



GENERAL PURPOSE ALKYD BASED  
CONFORMAL COATING

**ULTIGARD 618** is a one component clear, air drying alkyd based anti-tracking conformal coating. The coating dries to provide a tough impervious insulating seal in difficult electrical environments. It is very effective in sealing off electrical leakage paths whilst also providing excellent noise reduction characteristics.

ADVANTAGES

TOUGH, ANTI-TRACKING COATING  
AIR DRYING, QUICK TOUCH DRY TIME  
CLEAR AVAILABLE WITH UV TRACER  
SUITED FOR TROPICALISATION  
AEROSOL VERSION AVAILABLE  
RoHS COMPLIANT

APPLICATION

For the coating of printed circuit boards to prevent ingress of water and environmental contaminants.

PROPERTIES OF UNCURED COATING -

Viscosity @ 25°C	200-300	mPa.s
Specific gravity	0.96 - 0.99	g/cm <sup>3</sup>
Appearance	Clear	
Flashpoint	27	°C
VOC Content	58	%
Pot life (500 grams)	15 minutes @ 21°C	
Handling time	45-60 minutes @ 21°C	
Full Cure	24 Hours @ 21°C	

Accelerated cure can be achieved by heating the components for 2 - 3 hours at 80°C which will give an equivalent cure comparable to 24 - 48 hours 21°C.

PROPERTIES OF CURED COMPOUND

Dielectric strength (IEC243)	720	kV/cm
After 24hrs immersion in water	300	kV/cm
Time to track (ASTM D2303)	222	Mins
Flexibility (ASTM D522)	Pass 5mm	(3/16") Mandrel
Working temperature range	-50 -+180	°C
Maximum working temperature (short term)	180	°C

DIRECTIONS FOR USE

Boards should be thoroughly cleaned before coating. Flux residues must be removed. Dip coating is not recommended for large scale production - small baths of of <5 litres must not be exposed for longer than 15 mins to the atmosphere. Immerse components into the coating for 1 -10 minutes and drain for 15 - 30 minutes over the bath. Continual use of Ultigard U618 in this manner will reduce the life of the product and result in in poor coating quality. Spray application requires Ultigard U618 to be thinned with UT4 thinner or alternatively use ready prepared aerosol version. Brush application requires the product to be stirred thoroughly and allowed to stand for 2 hours to allow bubbles to evacuate completely. It should then be applied using a good quality brush at room temperature (>15°C) so as to achieve a good coating and not disturb wiring/sensitive electronic components.

Any of the above application methods require the board to be left to cure at 15 - 45°C with a relative humidity of >40%.

STORAGE & SHELF LIFE

At 20°C in sealed containers shelf life is 12 months.

PACKAGING

25 litre kits.  
400 ml aerosols.

HEALTH & SAFETY

See relevant Material Safety Data Sheet.

NOTE: Due to the introduction of improvements from time to time the right is reserved to supply products that may differ slightly from those illustrated or described in

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