



MAC 56

MODIFIED ACRYLIC COATING

TECHNICAL DATA SHEET

Typical Properties:

Chemical Type	: Modified Acrylic resin
Appearance	: Transparent Clear
Color	: Light straw
Components	: Single component – requires no mixing
Cure	: Room temperature cure (Air drying)
Application	: Conformal coating for protection of printed circuit assemblies
Packing	: 5 ltr / 20ltr cans

MAC 56 is a acrylic based coating designed for the protection of printed circuit board assemblies & other electronic and electrical components from harsh environmental conditions. Its high dielectric strength prevents short circuiting, high voltage arcing and corona effect. **MAC 56** is an air drying; room temperature curing, single component coating which protects the coated surface from moisture, dust, corrosion, fungus and thermal shock. Its fast air drying property allows components to be ready for further handling within 30 minutes, making it convenient for further processes.

Specifications:

Density @ 25°C	: 0.9 - 1.0 gm/cc
Liquid Viscosity	: 48 +/- 5 secs (Ford cup B4)
Solid Content, %	: 40 ± 3
Flash point (closed cup)	: 8°C
Dielectric strength, ASTM D 149 (KV/mm)	: 70.6
Surface Resistivity, IEC 60093, ()	: 6.8 x 10 ¹⁵
Volume Resistivity, IEC 60093, (-cm)	: 2.3 x 10 ¹⁵
Dissipation Factor @ 50 Hz	: 0.033
Dielectric Constant @ 50 Hz	: 0.51

DIRECTIONS FOR USE:

Surface to be coated should be thoroughly cleaned prior to coating in order to ensure that satisfactory adhesion to the substrate is achieved. It should be free of moisture, flux residues, dirt, wax, grease, oil and other contaminants. Contamination under the coating may become corrosive and lead to assembly failure.

MAC 56 can be applied by spraying, brushing or dip coating. The liquid is in ready to use condition. However, over a period of extended time, viscosity change can occur due to solvent evaporation. In such a case, the viscosity can be adjusted by addition of **Thinner/Stripper 'CTS 05'**. The thickness and uniformity of the coating depends on the operator's technique and must be determined by trials with the method concerned.

Dip coating: The board assemblies should be immersed in the dipping tank in the vertical position for approximately 10 seconds and then withdrawn at a suitable rate (to be determined by trials) to ensure that an even film covers the entire surface.

Brushing: Use a brush having soft nylon bristles. Care must be taken not to re-apply on partially cured surface in order to avoid bristle marks.



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Spraying: MAC 56 may not be readily suitable for use in manual spray guns and other conventional coating equipment. The addition of **Thinner/Stripper 'CTS 05'** may be necessary to bring it down to a suitable viscosity to ensure a coating of uniform thickness. The amount of thinner to be added will depend on the type of spray equipment, spray pressure and on the operator's technique. Ensure proper exhaust and adequate ventilation in the spraying booth so that the spray vapour is carried away from the operator.

CURING PROCESS: The coating will air dry tack free in 30 minutes, curing fully in 24 hours. The curing time can be accelerated by curing at room temperature for 2 hours followed by curing in an air circulating oven @70°C for 1 hour. This process will also ensure that maximum coating properties are achieved.

INSPECTION: MAC 56 fluoresces under UV light which allows inspection of the PCB after coating to ensure complete coverage.

REPAIR: The cured coating may be removed by soaking and cleaning with **Thinner/Stripper 'CTS 05'**. Component replacement may be accomplished by localized desoldering/soldering directly through the coating. Re-apply the coating on the repaired area.

SHELF LIFE: 1 year in original unopened container.

HANDLING & STORAGE: Keep the product away from fire and heat as the solvents in **MAC 56** are flammable. Avoid contact with eyes and skin. Avoid inhalation of vapors. Use only in well ventilated areas. Store in a cool, dry room at room temperature in tightly closed container. Keep away from fire and heat. Refer to MSDS before use.

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of the product are beyond our control, this information should not be used as a substitute for customer's tests to ensure that our products are safe, effective and fully satisfactory for the intended end use. Our sole warranty is that the product will meet the sales specifications in effect at the time of shipment.