

Aquaseal CYM20

Conformal Coatings

Cyanate Ester Coating

Aquaseal CYM20 is a one component, durable, heat curable cyanate ester coating for printed circuit assemblies. CYM20 is an effective alternative to Parylene C, providing better moisture protection and employing a more labor friendly coating process. CYM20 may be applied by spray, dip, or brush. CY20 is MIL-I-46058C qualified.

CYM20 Liquid Properties

	Units	Value	Test Method
Specific Weight	lbs/gal	7.46	ASTM D1475
Solids Content	% by weight	45.0	Fed-Std-141
Viscosity	Cps	<100	Fed-Std-141
Flashpoint	N/A	N/A	
V.O.C.	g/L	550	
Coating Thickness	Mils	1-2	
Curing Conditions	Hours	2 hours @250°F	
Thinner, if necessary	MEK		
Room Temperature Shelf Life	Months	12	

CY20M Cured Properties

	Value	Test Method
Clarity	Transparent	
Build per Dip	1 mil	ASTM D823
Adhesion	Excellent	ASTM D2197
Flammability	Self-Extinguishing	ASTM D635
Weather Resistance	Excellent	
Continuous Use Operating Range	-65°C to +150°C	
Thermal Shock	Pass	Mil-I-46058C
Solderability	Excellent	
Coefficient of Thermal Expansion	55ppm/°C	
Glass Transition Temperature	170°C	
Dielectric Withstand Voltage	>1,500 volts	Mil-I-46058C
Dielectric Breakdown Voltage	10,000 volts	ASTM D149
Dielectric Constant	3.5 @1MHz	ASTM D150
Dissipation Factor	0.03 @1MHz	ASTM D150
Insulation Resistance	300x10 ¹² ohms	Mil-I-46058C
Moisture Resistance	300x10 ¹² ohms	Mil-I-46058C
Fungus Resistance	Pass	
Chemical Resistance	Excellent	

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Conformal Coatings Application

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Prior to application thoroughly clean the substrate. The substrate must be free of contaminants such as moisture, dirt, and grease.

UDC CYM20 may be applied using conventional spraying equipment. If necessary a small amount of MEK solvent may be used to reduce the viscosity of the CYM20. It is not recommended to use more than 2 parts by volume of MEK. The amount and spray pressure will depend on the equipment used, and should be trailed by the end user before final application. All spraying should be done under and exhaust hood so that the vapor and mist are carried away from the operator. CYM20 is recommended to be applied in 3 layers to ensure full coverage of the part.

Curing Conditions

For coatings more than 1 mils thick, after application CYM20 should be placed at 120°F for up 30 min to remove all solvent from the system. Following the evaporation of the solvent, CYM20 can be cured at 250°F for 2 hours or 380°F for 10 min.

Caution

The solvents used in CYM20 are flammable. Do not use in the presence of open flame or sparks. Avoid inhalation of vapors or spray. Use in a well ventilated area. Avoid contact with skin and eyes. Rubber gloves and protective eyewear should be used at all times. If contact occurs, wash with soap and water. If swallowed contact a physician immediately.

LEGAL DISCLAIMER

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