

Technical Data Sheet

Konform® HR

Water-Based Hybrid Acrylic/Urethane Conformal Coating

PRODUCT DESCRIPTION

Konform® HR Hybrid Conformal Coating is a unique protective coating offering the insulating dielectric advantages of an acrylic coating with the chemical resistance of a urethane system. Formulated with a unique acrylic / urethane backbone, this resin system offers effective circuit board protection with a water based carrier. Konform® HR provides an effective protective barrier against humidity, salt, corrosive vapors and fungus for printed circuit board and electronic assemblies. Coating meets IPC-CC-830B Class.


- Superior dielectric strength, helps prevent arcing and shorts
- Improved abrasion and solvent resistance
- Water-based material with a low odor, easy to apply
- Dries to a clear, highly durable coating
- Increases life of electronic assemblies
- Will not discolor over time under normal use
- Contains a UV indicator for Quality Control inspection using medium intensity light at 265-335 nm

TYPICAL APPLICATIONS

Konform® HR Hybrid Conformal Coating is ideal for applications in:

- Automotive Manufacturing
- Data Communications
- Instrumentation
- Marine Manufacturing
- Process Controls

TYPICAL PRODUCT DATA AND PHYSICAL PROPERTIES

Usable Temp. Range of Cured Coatings	-31°F to 212°F (-35°C to 100°C)
Tack Free Time	1 hour
Curing Conditions (@ 60% R.H.)	24 Hours @ 77°F (25°C) 8 Hours @ 170°F (77°C)
Specific Gravity (Water=1) @ 68°F	1.06 (Liquid Only)
Viscosity (cps @ 77°F)	460± 5 cps
pH	8.8
Dielectric Strength	770 volts/mil
Dielectric Breakdown (volts)	7100 volts
Flash Point (TCC)	None
Coverage (1 gallon)	577 mil sq. ft
Shelf life	2 years
RoHS Compliant	
CARB & OTC VOC Content	0.88%
SCAQMD VOC Content	10g/L

*Volatile Organic Compound (VOC) information is calculated on a weight basis using the VOC definition of California Air Resources Board (CARB) Consumer Product Regulations, South Coast Air Quality Management District (SCAQMD) Rule 102 and the Federal definition published in 40 CFR 51.100(s).

COMPATIBILITY

Konform® HR Hybrid Conformal Coating is generally compatible with most materials found on printed circuit boards. As with any chemical product, product/component compatibility must be determined on a non-critical area prior to use. Do not use on bare, untreated iron and steel.

<u>Performance</u>	
Moisture Resistance	Good
Removability	Good
Ease of Repair	Excellent
Flexibility	Excellent
Adhesion	Excellent
Abrasion Resistance	Good
Solvent Resistance	Fair

USAGE INSTRUCTIONS

For industrial use only.
 Read MSDS carefully prior to use.
 Before applying Konform® HR Hybrid Conformal Coating, clean circuit boards thoroughly to remove oil, grease, dirt, flux and all other types of contamination. Allow to dry. Cleaning may be performed with Chemtronics® Electro-Wash® or Eco-Rite™ degreasing products. Do not apply to iron or untreated steel.

DIP APPLICATION: Using automatic equipment or hand immersion technique, slowly immerse PCB into the coating and remove slowly. Use an average rate of approximately 1 foot per minute. After allowing the board to cure, process may be repeated to achieve desired thickness.

BRUSH APPLICATIONS: Evenly apply coating to areas desired at thickness required. Allow time for curing before reapplying to achieve a thick coating. Use Chemask® to protect components during conformal coating process.

CURING: For the best coating appearance and adhesion, cure in conditions with good air flow and a relative humidity below 70% . Accelerated cure may be accomplished by lowering ambient humidity, or elevating temperature up to 170°F (77°C).

REMOVAL: After application, cured Konform® HR may be removed by soaking in Chemtronics® Electro-Wash® Two Step.

AVAILABILITY

CTHR1	1 Gallon Liquid
CTHR5	5 Gallon Liquid
CTHR55	55 Gallon Liquid

TECHNICAL & APPLICATION ASSISTANCE

Chemtronics provides a technical hotline to answer your technical and application related questions. The toll free number is: **1-800-TECH-401.**

NOTE: This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. CHEMTRONICS does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

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