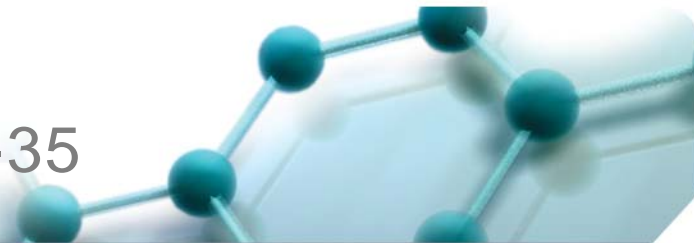


CONATHANE[®] CE-1155-35

TECHNICAL PRODUCT BRIEF



DESCRIPTION

- Qualified to MIL-I-46058-C, Type UR and IPC-CC-830B -

CONATHANE CE-1155-35 is a two-component, high-performance, solvent-based polyurethane coating system for protecting circuit assemblies in adverse environments. CONATHANE CE-1155-35 is supplied at 35% solids and is primarily intended for spray applications. Application can be made by dipping, however two or more coats may be required to obtain a recommended film thickness of 1.5 to 2 mils.

CHARACTERISTICS AND PROPERTIES

Table 1 | Product Description

Property	Prepolymer PART A	Curative PART B
Color	Clear Amber	Clear Amber
Viscosity @ 25°C (77°F)	30 cps	20 cps
Specific Gravity @ 25°C (77°F)	1.05	0.93
Solids Content, %	37	30
Flashpoint, TCC	32°C/90°F	13°C/55°F
Shelf Life @ 25°C (77°F) (from date of manufacture when stored in the original, unopened containers)	15 months	15 months

Table 2 | Cured Properties

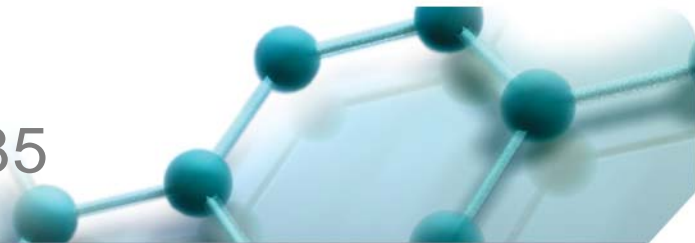
Physical Properties	Value
Color	Clear
Chemical and Solvent Resistance	Excellent
Flexibility per MIL-I-46058-C	Passes
Fungus Resistance per MIL-STD-810B	Non-Nutrient
Hydrolytic Stability – After aging 120 days @ 85°C (185°F) and 95% R.H. there was no evidence of discoloration, softening, tackiness, reversion to a liquid state, chalking, blistering, cracking, or loss of adhesion (per MIL-I-46058-C)	
Thermal Shock per MIL-I-46058-C	Passes
Solderability	Excellent

Table 3 | Electrical Properties

Property	Value
Dielectric Constant, 1 MHz @ 25°C (77°F)	3.42
Dissipation Factor, 1 MHz @ 25°C (77°F)	0.016
Volume Resistivity, ohm-cm @ 25°C (77°F)	1.2×10^{16}
Surface Resistivity, ohms @ 25°C (77°F)	5.7×10^{14}
Insulation Resistance, ohms @ 25°C (77°F)	$>2.5 \times 10^{13}$
Moisture Resistance, ohms 10 th Cycle @ 65°C(149°F), 98% R.H.	6.1×10^{10}
Dielectric Withstanding Voltage, volts	>1500

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APPLICATION AND PROCESSING INFORMATION

Table 4 | Application & Processing

Property	Value
Mix Ratio by Volume, Part A/Part B	1/1
Mixed Viscosity @ 25°C (77°F), cps	25
Pot Life @ 25°C (77°F), hours	8-10
Cure @ 25°C (77°F), (tack free time 2-3 hours)	5-7 days
Cure @ 60°C (140°F), (tack free time 25-30 minutes)	3 hours

Mix the two components together thoroughly. Air bubbles introduced through mixing will normally dissipate in a few minutes.

CONATHANE CE-1155-35 is a high-performance conformal coating based on raw materials of the highest purity. The ultimate performance of the cured coating on an assembly is dependent on process controls used in application of the coating.

Specific substrates to be used in production should be thoroughly evaluated. For example: there may be differences in performance on G-10, G-11, or other laminates. Cleanliness of the substrates is a major factor in promoting adhesion and preventing under-film corrosion. Boards **MUST** be clean, oil-free, and dry. Request **Technical Bulletin C-115** for specific cleaning recommendations prior to coating.

Because CONATHANE CE-1155-35 is a solvent-based system, it is not recommended that more than 2 to 2.5 mils of wet film thickness be applied during one application. This will prevent the possibility of solvent entrapment. If more than one coat is desired, allow 2 hours at room temperature or ½ hour at 60°C(140°F) before recoating.

CONATHANE CE-1155-35 can be applied by spraying, dipping, or brushing and may be thinned with CONAP[®] S-8 solvent to lower the viscosity or to adjust film thickness.

HANDLING AND STORAGE INSTRUCTIONS

CONATHANE CE-1155-35 should be stored at temperatures of 20°C-30°C (68°F-86°F) in tightly closed containers. If containers are opened and the contents only partially used, the containers should be flushed with dry nitrogen (see CONAP[®] Dri-Purge) or dry air before being resealed.

The shelf life of CONATHANE CE-1155-35 Part A and Part B is 15 months from date of manufacture when stored in the original, unopened containers at the temperatures recommended above.

CONATHANE CE-1155-35 Part A contains traces of monomeric isocyanate. Adequate ventilation should be provided during and immediately after application. The use of respirators suitable for organic vapors is recommended. Ovens should be vented to the atmosphere. Avoid breathing of vapors or spray and prevent contact with the skin and eyes. If contact does occur, wash with soap and water.

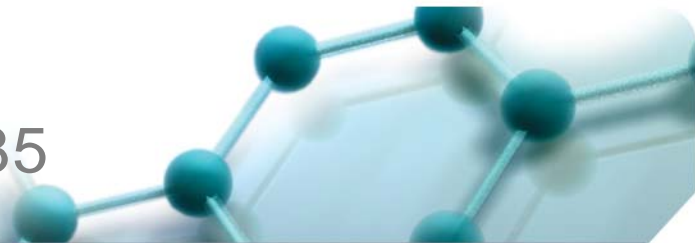
AVAILABILITY

CONATHANE CE-1155-35 is available in gallon and 5-gallon units. Each unit consists of pre-weighed quantities of Part A and Part B packaged in separate containers.

An EVALUATION KIT is available at a nominal cost.

CONATHANE[®] CE-1155-35

TECHNICAL PRODUCT BRIEF



SEE **Conformal Coatings Comparison Chart** for other Cytec conformal coatings.

CAUTION: Responsible handling of Cytec Industries Inc. products requires a thorough review of safety, health, and environmental issues prior to use. Review the Material Safety Data Sheets(s) for the specific Cytec Industries Inc. product(s) and container label information before opening containers. Ensure that employee exposure issues are understood, communicated to all workers, and controls are in place to prevent exposures above Permissible Exposure Limits (PELs). Review safety and environmental issues to be certain controls are in place to prevent injury to employees, the community, or the environment, and ensure compliance with all applicable Federal, State, and Local laws and regulations. For assistance in this review process, please call your Cytec Industries Inc. representative or our office noted below.

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DISCLAIMER: The data and information provided in this document have been obtained from carefully controlled samples and are considered to be representative of the product described. Because the properties of this product can be significantly affected by the fabrication and testing techniques employed and since Cytec Engineered Materials (CEM) does not control the conditions under which its products are tested and used, CEM cannot guarantee that the properties provided will be obtained with other processes and equipment. CEM has the right to change any data or information when deemed appropriate.

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