

### CONAPOXY® RN-1000

CONAPOXY® RN-1000 is a diluted epoxy potting and casting resin. When CONAPOXY® RN-1000 is cured with the hardeners listed below, these systems possess low shrinkage, low exotherm, good thermal shock and electrical properties, with a hardness range of 80-90 Shore D are obtained.

- CONACURE® EA-02** provides Room temperature cure, low viscosity, pot life of 30 minutes, rigid.
- CONACURE® EA-028** provides Limited flexibility, pot life of 30 minutes, low viscosity. Will cure in thin films at room temperature. Very good thermal shock resistance.
- CONACURE® EA-87** provides: Limited flexibility, pot life of 90 minutes, low viscosity, EA-87 requires heat to cure in thin films. Less expensive than EA-028.

#### TYPICAL PRODUCT CHARACTERISTICS

(THESE ARE TYPICAL DATA AND ARE NOT MEANT TO SERVE AS SPECIFICATIONS)

	CONAPOXY® RN-1000	CONACURE® EA-02	CONACURE® EA-028	CONACURE® EA-87
Color	Clear Amber	Clear Amber	Clear Amber	Light Amber
Specific Gravity @ 25°C	1.144	0.980	1.00	0.960
Viscosity @ 25°C, cps	800	55	40	55

#### TYPICAL CURED PROPERTIES

(THESE ARE TYPICAL DATA AND ARE NOT MEANT TO SERVE AS SPECIFICATIONS)

CONAPOXY® RN-1000 CURED WITH:	CONACURE® EA-02	CONACURE® EA-028	CONACURE® EA-87
<b><u>PHYSICAL PROPERTIES</u></b>			
Hardness, Shore D	80	80	88
Tensile Strength, psi	10,000	4,000	7,200
Compressive Strength, psi	15,000	14,000	16,000
Flexural Strength, psi	14,000	6,000	9,000
Linear Shrinkage, %	1.3	1.4	0.8
Glass Transition Temperature °C	80-85	60-65	70-75
Coefficient of Thermal Expansion, in/in/°C	50-55 x 10 <sup>-6</sup>	50-55 x 10 <sup>-6</sup>	50-55 x 10 <sup>-6</sup>
Thermal Conductivity (CAL x CM/SEC x SQcm x °C)	4-5 x 10 <sup>-4</sup>	4-5 x 10 <sup>-4</sup>	4-5 x 10 <sup>-4</sup>
<b><u>ELECTRICAL PROPERTIES</u></b>			
Dielectric Strength, vpm	350	350	350
Dielectric Constant @ 1 KHz, 25°C	3.5	4.7	5.0
Dissipation Factor @ 1 KHz, 25°C	0.002	0.015	0.040
Volume Resistivity, ohm-cm @ 25°C	3.0 x 10 <sup>14</sup>	4.0 x 10 <sup>12</sup>	9.0 x 10 <sup>15</sup>
Surface Resistivity, ohms @ 25°C	2.0 x 10 <sup>15</sup>	9.5 x 10 <sup>14</sup>	4.0 x 10 <sup>16</sup>

#### RECOMMENDED PROCESSING PROCEDURES

CONAPOXY® RN-1000 CURED WITH:	CONACURE® EA-02	CONACURE® EA-028	CONACURE® EA-87
Mix Ratio by weight, resin/hardener	100/11	100/28	100/37
Mixed Viscosity @ 25°C, cps	600	500	250
Specific Gravity	1.128	1.112	1.094
Gel Time @ 25°C	30 minutes	30 minutes	90 minutes
Cure Schedule	24 hrs. @ 25°C or	24 hrs. @ 25°C or	24 hrs. @ 25°C or
Alternate Cure	2 hrs. @ 60°C	2 hrs. @ 60°C	2 hrs. @ 60°C

### **STORAGE AND HANDLING**

The shelf life of CONAPOXY® RN-1000 and the hardeners is 18 months from date of manufacture when stored in the original unopened container at temperatures of 65-85°F.

**CAUTION:** Avoid contact with skin and eyes. If contact occurs, wash with soap and water. Use only in well-ventilated areas and avoid prolonged or repeated breathing of fumes.

### **AVAILABILITY**

CONAPOXY® RN-1000 is available in quart, gallon, 5-gallon, and 55-gallon containers.

CONACURE® hardeners are available in pint, quart, gallon, and 5-gallon containers.

An EVALUATION KIT of CONAPOXY® RN-1000, and the hardener of your choice, is available at a nominal fee.

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The information presented here is based on carefully conducted laboratory tests and is believed to be accurate. However, results cannot be guaranteed and it is suggested that customers confirm results in their own laboratory before plant tests are made. Nothing contained in this bulletin shall be construed as a recommendation to use any product or process in violation of the claims of any patent now in effect.

NOTICE: Precautionary labels and Materials Safety Data Sheet(s) for all materials referred to, whether the materials are produced by CYTEC INDUSTRIES, INC. or other manufacturers, should be fully read and understood by all supervisory personnel and employees before using. For additional safety and health information, contact CYTEC INDUSTRIES INC. Purchaser has the responsibility for determining any applicability of and compliance with federal, state, and local laws and/or regulations involving labeling, use, and waste disposal, particularly in making consumer products.