



CONAPOXY® FR-1046

DESCRIPTION

CONAPOXY FR-1046 is a low cost epoxy potting and casting system. Major characteristics include: low viscosity, low shrinkage, low exotherm, excellent resistance to thermal shock, and very good electrical insulation properties. When cured with any of the hardeners presented below, a hardness of 85-90 Shore D durometer is obtained.

CONAPOXY FR-1046 is an excellent choice when automatic meter, mix, and dispensing equipment is used because of non-abrasive fillers in the resin.

CONACURE® EA-02	Room temperature cure, low viscosity, short 30 minute pot life, rigid castings.
CONACURE® EA-028	Limited flexibility, moderate 50 minute pot life, low viscosity. Will cure in thin films at room temperature. Very good thermal shock resistance.
CONACURE® EA-87	Limited flexibility, moderate 50 minute pot life, low viscosity. CONACURE EA-87 requires heat to cure in thin films. Lower in cost than EA-028.

CHARACTERISTICS AND PROPERTIES

Table 1 | Product Description

Property	CONAPOXY FR-1046	CONACURE EA-02	CONACURE EA-028	CONACURE EA-87
Color	Black	Clear Amber	Clear Amber	Light Amber
Specific Gravity @ 25°C	1.62	0.980	1.00	0.960
Viscosity @ 25°C	17,000	55	40	55

Table 2 | Typical Cured Physical Properties

CONAPOXY FR-1046 Cured with:	CONACURE EA-02	CONACURE EA-028	CONACURE EA-87
Hardness, Shore D	88	85	87
Tensile Strength, psi	6,600	7,700	7,700
Compressive Strength, psi	17,000	11,000	15,000
Linear Shrinkage, in/in	0.012	0.009	0.001
Glass Transition Temp., °C	68	45	52
Coefficient of Thermal Expansion, in/in/°C	34×10^{-6}	37×10^{-6}	36×10^{-6}

Table 3 | Typical Cured Electrical Properties

CONAPOXY FR-1046 Cured with:	CONACURE EA-02	CONACURE EA-028	CONACURE EA-87
Dielectric Strength, vpm	375	375	375
Dielectric Constant @ 100 Hz, 25°C	5.54	5.73	4.83
Dissipation Factor @ 100 Hz, 25°C	0.005	0.005	0.005
Volume Resistivity, ohm-cm	6.0×10^{15}	1.0×10^{15}	1.0×10^{16}
Surface Resistivity, ohm-cm	5.0×10^{15}	2.0×10^{15}	6.0×10^{17}

Table 4 | Typical Processing Parameters

CONAPOXY FR-1046 Cured with:	CONACURE EA-02	CONACURE EA-028	CONACURE EA-87
Mix Ratio by Weight, resin/hardener	100/5.5	100/14	100/18
Mixed Viscosity @ 25°C, cps	6,800	3,600	2,000
Specific Gravity @ 25°C	1.58	1.51	1.48
Gel Time @ 25°C	30 minutes	50 minutes	50 minutes
Cure Schedule @ 25°C	24 hours	24 hours	24 hours
Alternate Cure @ 60°C @ 150°C	2 hours -	2 hours -	2 hours --
Peak Exotherm, 200 gram mass, °C	145	135	125

HANDLING AND STORAGE INSTRUCTIONS

Maintain containers at temperatures of 20° – 30°C (68° – 86°F) and keep securely closed when not in use.

CONAPOXY FR-1046 & CONACURE hardeners have a shelf life of 18 months from date of manufacture when stored in the original unopened containers at 20° – 30°C (68 – 86°F). Settling of fillers may occur in the resin. Please mix before use.

Use only in well-ventilated areas. Adequate ventilation should be provided during and immediately after application. Avoid breathing of vapors or spray. Prevent skin contact. If contact occurs, wash with soap and water. Material is flammable. Do not use in presence of open flames or sparks.

AVAILABILITY

CONAPOXY FR-1046 is available in gallon, 5-gallon, and 55-gallon containers.

CONACURE hardeners are available in gallon and 5-gallon containers.

An EVALUATION KIT of CONAPOXY FR-1046 and hardener of your choice is available at a nominal fee.

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.

CONTACT INFORMATION

tel: (+1) 716-376-7816

email: Conap.CustSvc@cytec.com

Email: Conap.CustSvc@cytec.com Worldwide Contact Info: www.cytec.com/conap Tel: (+1) 716-376-7816 Fax: (+1) 716-372-1594

Disclaimer: Cytec Industries Inc. in its own name and on behalf of its affiliated companies (collectively, "Cytec") decline any liability with respect to the use made by anyone of the information contained herein. The information contained herein represents Cytec's best knowledge thereon without constituting any express or implied guarantee or warranty of any kind (including, but not limited to, regarding the accuracy, the completeness or relevance of the data set out herein). Nothing contained herein shall be construed as conferring any license or right under any patent or other intellectual property rights of Cytec or of any third party. The information relating to the products is given for information purposes only. No guarantee or warranty is provided that the product and/or information is adapted for any specific use, performance or result and that product and/or information do not infringe any Cytec and/or third party intellectual property rights. The user should perform its own tests to determine the suitability for a particular purpose. The final choice of use of a product and/or information as well as the investigation of any possible violation of intellectual property rights of Cytec and/or third parties remains the sole responsibility of the user.

TRADEMARKNOTICE The ® indicates a Registered Trademark in the United States and the ™ or * indicates a Trademark in the United States. The mark may also be registered, the subject of an application for registration or a trademark in other countries.