

ER2300/CT23000

Moisture, Chemical and High Temperature Resistant 2-Part Potting Epoxy

APPLICATIONS

- Electronic Encapsulation
- Electrical Component Sealing

FEATURES

- 2-Part Heat Cure
- Excellent Moisture Resistance
- High Temperature Resistance
- Good Thermal Shock Resistance
- Arc Track Resistance
- Chemical Resistance
- Void-Free Potting

RECOMMENDED SUBSTRATES

- Ceramic
- FR4
- Plastics
- Glass
- Aluminum
- Cold Rolled Steel
- Stainless Steel

Crosslink® ER2300/CT2300 is a 100% solids formulation designed to meet the most critical electronic requirements. It is characterized by its high temperature, thermal shock and arc track resistance. The cured resin has excellent moisture and chemical resistance. ER2300/CT2300 shows excellent adhesion to a wide range of substrates and forms a hermetic seal to protect and encapsulate parts. This product is in full compliance with the RoHS Directives 2002/95/EC and 2003/11/EC.

TYPICAL UNCURED PROPERTIES (RESIN)*

Property	Value	Test Method
Solvent Content	No Nonreactive Solvents	N/A
Chemical Class	Epoxy	N/A
Appearance	Black Paste	N/A
Soluble in	Organic Solvents	N/A
Density, g/ml	1.54	N/A
Viscosity, cP (20rpm)	80,000 (nominal)	ASTM 2556
Mixed Viscosity, cP (20 rpm)	6260 (nominal)	ASTM 2556

TYPICAL UNCURED PROPERTIES (CATALYST)*

Property	Value	Test Method
Solvent Content	No Nonreactive Solvents	N/A
Chemical Class	Acid Anhydride	N/A
Appearance	Black	N/A
Soluble in	Organic Solvents	N/A
Density, g/ml	1.45	N/A
Viscosity, cP (20rpm)	1800 (nominal)	ASTM 1084

CURED MECHANICAL PROPERTIES

Property	Value	Test Method
Durometer Hardness	D85	ASTM D2240
Tensile at Break, MPa [psi]	14 [2000]	ASTM D638
Elongation at Break, %	0.9	ASTM D638
Modulus of Elasticity, MPa [psi]	962 [140,000]	ASTM D638

CURED ELECTRICAL PROPERTIES (OPTIONAL)

Property	Value	Test Method
Dielectric Constant (1MHz @ 25°C [77°F])	Pending	ASTM D150
Dielectric Strength (kV/mm)	Pending	ASTM D149
Volume Resistivity (ohm-cm)	Pending	ASTM D257

OTHER CURED PROPERTIES

Property	Value	Test Method
Boiling Water Absorption, % (2 h)	0.4	ASTM D570
Water Absorption, % (25°C, 24 h)	0.1	ASTM D570
Linear Shrinkage, %	0.8	ASTM D2566

* Not Specifications

N/A Not Applicable



HANDLING INSTRUCTIONS

Recommended Mix Ratio, Resin: Catalyst	1:1
Pot Life @25° C (100 grams)	48 Hours

CURING GUIDELINES
CURE SCHEDULE

Time, min	Temperature, °C [°F]
120	145 [293]

INSTRUCTIONS FOR USE

1. Weigh out required amount of ER2300 and CT2300 in the ratio of 1 part resin to 1 part catalyst.
2. Thoroughly stir or shake catalyst before use.
3. Mix by hand stirring or with mechanical agitation until catalyst and resin are uniformly dispersed. Do not entrap excessive air.
4. Vacuum deairation may be used where required for absolute void-free casting.
5. To aid in air release, the resin and or catalyst may be preheated up to 35°C [95°F]

OPTIMIZING PERFORMANCE AND HANDLING

1. Parts should be allowed to cool after cure before testing and subjecting to any loads.
2. Parts should be free from oil and debris for best performance.

DISPENSING THE ADHESIVE

This material may be dispensed with a variety of manual and automatic applicators, or other equipment as required. Questions relating to dispensing and curing systems for specific applications should be referred to DYMAX Applications Engineering.

STORAGE AND SHELF LIFE

Keep covered when not in use. This material has a 12 month shelf life when stored between 10°C [50°F] and 32°C [90°F] in the original, unopened container.

CLEAN UP

Uncured material may be removed from dispensing components and parts with organic solvents. Cured material will be impervious to many solvents and difficult to remove. Clean up of cured material may require mechanical methods of removal.

GENERAL INFORMATION

This product is intended for industrial use only. Keep out of the reach of children. Avoid breathing vapors. Avoid contact with skin, eyes, and clothing. Wear impervious gloves. Repeated or continuous skin contact with uncured material may cause irritation. Remove material from skin with soap and water. Never use organic solvents to remove material from skin and eyes. For more information on the safe handling of this material, please refer to the Material Safety Data Sheet before use.

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