



CROSSLINK TECHNOLOGY INC.

FORMULATED EPOXIES, URETHANES - CUSTOM CAST PARTS

ISO

9001

REGISTERED
QUALITY SYSTEM

SINCE 1981

TECHNICAL BULLETIN: CLR 1331 / CLH 5515

PRODUCT DESCRIPTION:

A TWO COMPONENT, HEAT CURED EPOXY SYSTEM, DEVELOPED SPECIFICALLY FOR USE ON INSTRUMENT AND POWER TRANSFORMERS. THE CURED MATERIAL EXHIBITS EXCELLENT THERMAL STABILTY AND THERMAL CYCLING PERFORMANCE. PRODUCT MEETS UL94-HB FLAMABILITY REQUIREMENTS.

| SALES SPECIFICATION | CLR 1331 | CLH 5515 |
|----------------------------|--------------------------------|--------------------------------|
| COLOUR | GREY | AMBER |
| VISCOSITY (NOTE 1, NOTE 4) | 20000 - 35000 CPS @ 70 °C | 5000 - 15000 CPS @ 45 °C |
| SPECIFIC GRAVITY | 1.85 ± 0.03 gm/cm ³ | 1.16 ± 0.02 gm/cm ³ |
| SHELF LIFE | 12 MONTHS | 12 MONTHS |

HANDLING:

| | |
|------------------------------------|---------------------------|
| MIX RATIO BY WEIGHT (A:B) (NOTE 2) | 100:50 (by vol. 100:80.0) |
| MIXED VISCOSITY (NOTE 4) | 4000 cps @ 65 °C |
| POT LIFE OF 200 gm. mass (NOTE 4) | 25.00 Min. @ 125 °C |
| GEL TIME OF 200 gm. mass (NOTE 4) | 40.00 Min. @ 125 °C |

CURE SCHEDULE (NOTE 3):

| | |
|---------------------------|-----------------|
| RECOMMENDED CURE SCHEDULE | 4 Hrs. @ 125 °C |
| OPIONAL POST CURE | 150 @ 150 °C |

CURED PROPERTIES: (NOT INTENDED FOR PREPARATION OF SPECIFICATIONS)

| | |
|---|---------------------|
| COLOUR | GREY |
| DENSITY (gm/cm ³) | 1.54 |
| SHORE HARDNESS | 82D |
| TENSILE STRENGTH (psi) (ASTM D 638) | 3850 |
| TENSILE ELONGATION (%) (ASTM D 638) | 37.5 |
| FLAMABILITY RATING | UL94-HB (130c.) |
| GUIDE TO OPERATING TEMPERATURE(°C)(NOTE 6) | 180 |
| LINEAR SHRINKAGE (in/in) (ASTM D 2566) | 0.0080 |
| COEFFICIENT OF THERMAL EXPANSION (in/in/°C) | 40X10 ⁻⁶ |
| THERMAL CONDUCTIVITY W/(m•K) | 15X10 ⁻⁴ |

ELECTRICAL PROPERTIES

| | | |
|----------------------|---------------|----------------------------|
| DIELECTRIC CONSTANT | @1 KHz | 3.50 |
| DISSIPATION FACTOR A | @1 KHz | 0.0200 |
| DIELECTRIC STRENGTH | 425 Volts/Mil | 62.5 Mil/Section |
| ARC RESISTANCE | | 180 Seconds |
| VOLUME RESISTIVITY | | 300 x10 ¹⁴ Ω•cm |

NOTES

Note1 If a filled resin, settling may occur during transportation or storage. Fillers must be remixed before use.

Note2 Mix ratio must be within ± 2% of the stated amount and thorough mixing is required to avoid degraded final properties.

Note3 Other cure schedules may give satisfactory results, however, these should be determined by the customer for their given circumstances.

Note4 All measurements taken at 22°C unless otherwise specified.

Note5 These products may trigger allergic responses in some individuals. Prevent contact with skin, wash with plenty of soap and water immediately if contact occurs. Do not breathe vapours, provide good ventilation and exercise good housekeeping at work area. Read the Material Safety Data Sheet.

Note6 The “Guide to Operating Temperature” is based on our experience with materials of similar chemistry and/or thermal index. The ultimate suitability of this product for a given operating temperature is application dependent and may change according to the demands placed upon it in operation.

Note7 If indicated, the values under “Electrical Characteristics” may be based on supplier data for products with similar compositions. They are provided only as a guide and the recipient must test each material to determine its suitability for the intended application.

IMPORTANT

THE INFORMATION IN THIS BULLETIN IS BASED ON DATA OBTAINED BY OUR OWN RESEARCH AND IS CONSIDERED ACCURATE. ALL INFORMATION SUPPLIED BY CROSSLINK TECHNOLOGY INC., IS FURNISHED UPON THE EXPRESS CONDITION THAT THE PERSON RECEIVING THE PRODUCT SHALL MAKE THEIR OWN ASSESMENTS TO DETERMINE ITS SUITABILITY FOR THEIR PARTICULAR PURPOSE. NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING SUCH INFORMATION, OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF; THAT ANY PRODUCT SHALL BE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE; OR THAT THE USE OF SUCH OTHER INFORMATION OR PRODUCT WILL NOT INFRINGE ANY PATENT.

