



# CROSSLINK TECHNOLOGY INC.

FORMULATED EPOXIES, URETHANES - CUSTOM CAST PARTS



Our strength is in our formulations

## TECHNICAL BULLETIN:

CLR 1837 / CLH 5185

## PRODUCT DESCRIPTION:

A HEAT CURE, LOW STRESS, EXTREMELY TOUGH, EPOXY CASTING COMPOUND. IT WAS SPECIFICALLY DESIGNED FOR CASTING LARGE BUSHINGS, INSULATORS, INSTRUMENT AND POWER TRANSFORMERS. THE CURED MATERIAL EXHIBITS EXCELLENT THERMAL STABILITY AND THERMAL CYCLING CHARACTERISTICS. THIS PRODUCT MEETS UL94-HB FLAMMABILITY REQUIREMENTS.

## SALES SPECIFICATIONS:

|                            | CLR 1837                       | CLH 5185                       |
|----------------------------|--------------------------------|--------------------------------|
| COLOR                      | RED                            | AMBER                          |
| VISCOSITY (NOTE 1, NOTE 4) | 50,000 - 100,000 cps @ 70 °C   | 300 - 1,000 cps                |
| SPECIFIC GRAVITY           | 1.90 ± 0.03 gm/cm <sup>3</sup> | 1.10 ± 0.02 gm/cm <sup>3</sup> |
| SHELF LIFE                 | 12 MONTHS                      | 12 MONTHS                      |

## HANDLING:

|                                    |                    |
|------------------------------------|--------------------|
| MIX RATIO BY WEIGHT (A:B) (NOTE 2) | 100:30.0           |
| MIXED VISCOSITY (NOTE 4)           | 6,000 cps @ 60 °C  |
| POT LIFE OF 200 gm. mass (NOTE 4)  | 5 Hrs. @ 60 °C     |
| GEL TIME OF 200 gm. mass (NOTE 4)  | 30.0 Min. @ 125 °C |

## CURE SCHEDULE (NOTE 3):

|                            |                 |
|----------------------------|-----------------|
| RECOMMENDED CURE SCHEDULE: | 4 Hrs. @ 125 °C |
| OPTIONAL POSTCURE          | 2 Hrs. @ 150 °C |

## CURED PROPERTIES: (NOT INTENDED FOR PREPARATION OF SPECIFICATIONS)

|  |                 |
|--|-----------------|
| COLOUR                                       | RED             |
| DENSITY (gm/cm <sup>3</sup> )                | 1.63            |
| SHORE HARDNESS                               | 90D             |
| GUIDE TO OPERATING TEMPERATURE (°C) (Note 6) | 155             |
| LINEAR SHRINKAGE (in/in) (ASTM D 2566)       | 0.0075          |
| TENSILE STRENGTH (psi) (ASTM D 638)          | 9,500           |
| TENSILE ELONGATION (%) (ASTM D 638)          | 4.0             |
| HDT (°C) (ASTM D 648)                        | 100             |
| MOISTURE ABSORPTION (%)                      | 0.200           |
| FLAMMABILITY                                 | UL94-HB (130c.) |
| FLEXURAL STRENGTH (psi)                      | 16,000          |
| FLEXURAL MODULUS (psi)                       | 1,200,000       |

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| <b>ELECTRICAL PROPERTIES:</b> |                |                             |
|-------------------------------|----------------|-----------------------------|
| DIELECTRIC CONSTANT           | @10 KHz        | 3.84                        |
|                               | @1 MHz         | 3.84                        |
| DISSIPATION FACTOR            | @10 KHz        | 0.0120                      |
|                               | @1 MHz         | 0.0131                      |
| DIELECTRIC STRENGTH           | 62 Mil/Section | 538 Volts/Mil               |
| ARC RESISTANCE                |                | 180 Seconds                 |
| VOLUME RESISTIVITY            |                | 12 x10 <sup>14</sup> Ohm/Cm |

**NOTES**

Note1 If a filled resin, setting 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 and obser.

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 IT’S 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.

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