



# CROSSLINK TECHNOLOGY INC.

FORMULATED EPOXIES, URETHANES - CUSTOM CAST PARTS



**TECHNICAL BULLETIN: CLR 1157 / CLH 5515**

## PRODUCT DESCRIPTION:

A TWO COMPONENT, HEAT CURE EPOXY SYSTEM SPECIFICALLY DEVELOPED FOR USE ON INSTRUMENT AND POWER TRANSFORMERS. THE CURED MATERIAL EXHIBITS EXCELLENT THERMAL STABILITY AND THERMAL CYCLING ENDURANCE. PRODUCT MEETS UL 94-HB FLAMMABILITY REQUIREMENTS.

SALES SPECIFICATION	CLR 1157	CLH 5515
COLOUR	RED	AMBER
VISCOSITY (NOTE 1, NOTE 4)	15000 - 30000 CPS @ 75 °C	5000 - 15000 CPS @ 45 °C
SPECIFIC GRAVITY	1.73 ± 0.03 gm/cm <sup>3</sup>	1.16 ± 0.02 gm/cm <sup>3</sup>
SHELF LIFE	12 MONTHS	12 MONTHS

## HANDLING:

MIX RATIO BY WEIGHT (A:B) (NOTE 2)	100:50 (by vol. 100:81.1)
MIXED VISCOSITY (NOTE 4)	2250 cps @ 65 °C
POT LIFE OF 200 gm. mass (NOTE 4)	30.00 Min. @ 125 °C
GEL TIME OF 200 gm. mass (NOTE 4)	40.00 Min. @ 125 °C

GEL AT 80°C~60 Min.

## CURE SCHEDULE (NOTE 3):

RECOMMENDED CURE SCHEDULE	7 Hrs. @ 125 °C
---------------------------	-----------------

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

COLOUR	RED
DENSITY (gm/cm <sup>3</sup> )	1.47
SHORE HARDNESS	70D
TENSILE STRENGTH (psi) (ASTM D 638)	1800
TENSILE ELONGATION (%) (ASTM D 638)	95.0
FLAMABILITY RATING	UL94-HB (130c.)
GUIDE TO OPERATING TEMPERATURE(°C)(NOTE 6)	155
LINEAR SHRINKAGE (in/in) (ASTM D 2566)	0.0080
MOISTURE ABSORPTION (% 24 Hours RT)	0.200
COEFFICIENT OF THERMAL EXPANSION (in/in/°C)	120X10 <sup>-6</sup>
THERMAL CONDUCTIVITY W/(m•K)	0.86

## ELECTRICAL PROPERTIES

<b>DISSIPATION FACTOR A</b>	@1	0.0430
<b>DIELECTRIC STRENGTH</b>	400 Volts/Mil	62.5 Mil/Section
<b>ARC RESISTANCE</b>		210 Seconds
<b>VOLUME RESISTIVITY</b>		$0.7 \times 10^{14} \Omega \cdot \text{cm}$

### **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  $\pm 2\%$  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.

