

# TECHNICAL DATA SHEET

# EP962 Brown

Revision date: 7/14/2023

# N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022 262-253-5900 FAX 262-253-5919

### **DESCRIPTION:**

Resinlab EP962 Brown is a one-part modified epoxy designed for bonding metal and other structural material subject to stress at elevated temperatures. It has a medium paste like viscosity, which gives minimal sag upon cure at elevated temperature. There are a variety of easy, low cost dispensing methods for application of this product.

*EP962 Brown* will reach full cure at 10 minutes at 175 °C to 2 hours at 113 °C. Time to heat substrate must be taken into account. Cooler temperatures will extend work time and increase cure times.

### **TYPICAL PROPERTIES:**

All properties given are at 25 °C unless otherwise noted

Property:	Value:	Test Method or Source:	
Color	Brown	Visual	
Cure Schedule	10 min @ 175 °C		
	2 hrs @ 113 °C		
Viscosity	Thixotropic Paste	TA HR20 Rheometer 25mm parallel plate @	
•	·	1/s DCV6100723	
Specific Gravity	1.40	Calculated	
Hardness	80 Shore D	455300006287/ASTM D2240	
Lap Shear Strength		4535601224468/ASTM D1002	
0.010" Bond Line, Al to Al	3,500 psi *		
T-Peel Strength	5 – 7 pli *	455300005588/ASTM D1876	
Electrical Resistivity:		455300006612/ASTM D257	
Volume	8 x 10 <sup>12</sup> ohm-cm *		
Dielectric Constant & Dissipation Factor:		455300006513/ASTM D150	
@ 100 Hz	4.5 *		
AC Dielectric Strength	17 kV/mm *	DCV6101609; ASTM D149 Method A,	
_	·	immersed in ASTM D3487 Type II Oil	
		Specimen thickness was ~1-3 mm	
Coefficient of Thermal Expansion by TMA:		455300005340/ASTM E831 TMA, 5 °C/min	
below Tg	43 ppm/°C *		
Operating Temperature Range	-55 to 150 °C**		
Relative Thermal Index (RTI)	90 °C	UL746B, Table 7.1	
		Generic Value Based on Composition	

<sup>\*</sup> Asterisk denotes values considered typical to associated resin systems or extrapolated from other test results.

<sup>\*\*</sup> Operating Temperature Range is based on average design requirements and is not intended as a guarantee of suitability for all applications operating at that temperature.

<sup>\*\*\*</sup> This TDS contains values that have been updated. The values reported in this technical data sheet are typical values of the product, and are highly dependent on test conditions and methodology. We actively seek the most precise and accurate ways to measure and interpret performance of our products, and to update estimated values with measured values. The formula has not been revised or changed in any way. Although the values on paper have changed, you can expect the same performance of the product.



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Additional Performance Data – Lap Shear Adhesion, 4535601224468/ASTM D1002:					
Substrate Type	Strength	Test Temperature	Cure Schedule	Bond Line Thickness	
Al to Al	3,500 *	25 °C	2.5 hrs @ 121 °C	0.010 "	
Al to Al	4,000 *	25 °C	45 min @ 135 °C	0.010 "	
Al to Al	4,000 *	25 °C	40 min @ 150 °C	0.010 "	
Al to Al	4,000 *	25 °C	20 min @ 177 °C	0.010 "	

### **INSTRUCTIONS:**

- 1. Bring to room temperature prior to use.
- 2. Apply to substrate with flow applicator, place in oven, allow to cure undisturbed until product is fully gelled or tack-free to the touch.
- 3. Clean up uncured resin with suitable organic solvent such as MEK or acetone.

### **SHELF LIFE AND STORAGE:**

9 months DOP at 5 °C. 6 months DOP @ 25 °C.

Specialty packaging may be less.

Usable shelf life is dependent upon method of application, storage conditions and user requirements.

NOTE: This product is sensitive to excursions above room temperature. Exposure to higher temperature, or cycling of product temperature, will shorten product shelf life.