

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

DESCRIPTION:

Resinlab[®] EP950G Gray is a one part, aluminum filled, rubber modified, epoxy designed for bonding metals and other structural materials subject to stress at elevated temperature. It has a medium paste-like viscosity which gives very little sag upon cure at elevated temperature.

A variety of simple, low cost dispensing methods are available for this product.

EP950G Gray will cure at temperatures as low as 113 °C (235 °F) without sacrificing shelf life or the need for unusual shipping or storage conditions.

TYPICAL PROPERTIES:

All properties given are at 25 °C unless otherwise noted.

Property:	Value:	Test Method or Source:
Color	Gray	Visual
Cure Schedule	2.5 hrs @ 121 °C 45 min @ 135 °C 40 min @ 150 °C 20 min @ 177 °C	
Viscosity	530,000 cP	TA HR20 Rheometer 25mm parallel plate @ 1/s DCV6100723
Specific Gravity	1.38	Calculated
Hardness	75 – 85 Shore D	455300006287/ASTM D2240
Glass Transition Temperature/Tg	118 °C	453560822409 by DSC
Water Absorption	1.46 %	24 hr immersion 457561824543/ASTM D570
Tensile Properties:		4535601224470/ASTM D638
Strength	9,500 psi	
Elongation	2 – 4 %	
Modulus	550,000 psi	
Lap Shear Strength		4535601224468/ASTM D1002
0.010" Bond Line, Al to Al	3,700 psi	
T-Peel Strength	5 – 7 pli *	455300005588/ASTM D1876
Thermal Conductivity by Transient Plane Heat Source (TPS)	0.4 W/m.K	Thermtest TPS Hot Disk ISO 22007-2 45376013225604
Volume Resistivity	8.0 x 10 ⁹ ohm-cm *	455300006612/ASTM D257
Dielectric Constant & Dissipation Factor @ 100 Hz	4.7 *	455300006513/ASTM D150
DC Dielectric Strength	4.3 kV/mm *	457561824539; ASTM D3755/D149 Method A, immersed in ASTM D3487 Type II Oil Specimen thickness was ~1-2 mm

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Coefficient of Thermal Expansion by TMA	455300005340/ASTM E831 TMA, 5 °C/min	
below Tg	49 ppm/°C *	
Operating Temperature Range	-40 to 175 °C	
Relative Thermal Index (RTI)	90 °C	UL746B, Table 7.1 Generic Value Based on Composition

* Asterisk denotes values considered typical to associated resin systems or extrapolated from other test results.

** 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.

*** 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.

Additional Performance Data – Lap Shear Adhesion, 4535601224468/ASTM D1002:

Substrate Type	Strength	Test Temperature	Cure Schedule	Bond Line Thickness
Al to Al	3,500 psi	25 °C	2.5 hrs @ 121 °C	0.010 "
Al to Al	4,000 psi	25 °C	45 min @ 135 °C	0.010 "
Al to Al	4,000 psi	25 °C	40 min @ 150 °C	0.010 "
Al to Al	4,000 psi	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:

6 months at 5 °C or less.

3 months at 25 °C.

Specialty packaging may be less.

Product will tolerate ambient conditions during shipment of up to 7 days.

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.