

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 – time to attain strength	3500 psi cure for 2.5 hours @121 °C 4000 psi cure for 45 min @ 135 °C 4000 psi cure for 40 min @ 150 °C 4000 psi cure for 20 min @ 177 °C	
Viscosity	530,000 cps @1/s	Rheometer parallel plate 25mm@1/s R050-49
Specific Gravity	1.36 – 1.40	Calculated
Glass Transition Temperature/Tg	118 °C	R050-61 by DSC
Hardness	75 - 85 Shore D	R050-17/ASTM D2240
Water Absorption	1.46% after 24 hours	R050-35/ASTM D570
Tensile Properties:		R050-36/ASTM D638
Strength	9,500 psi	
Elongation	2-4%	
Modulus	550,000 psi	
Lap Shear Strength		R050-37/ASTM D1002
0.010" bond line Al to Al	3,700 psi	
T-Peel	5 – 7 pli*	
Thermal Conductivity by LFA	0.40 W / (m.K)*	
Volume Resistivity	8.0 x 10 ⁹ ohm-cm*	
Coefficient of Thermal Expansion by TMA	49 ppm/ °C (below Tg)*	
Temperature Range	-40 to 175 °C**	
Dielectric Constant (25 °C, 100Hz)	4.7*	
Dielectric Strength	110 V/mil* 4.3 kV/mm*	

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

** Temperature Rating is based on average design requirements and is not intended as a guarantee of suitability for all applications operating at that temperature.

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INSTRUCTIONS:

1. Bring material to room temperature prior to mixing. Apply to substrate with spatula or flow equipment.
2. Apply heat to cure. Suggested cure times stated above are normally sufficient to cure this product. Actual times may be longer due to heat capacity of substrates.
3. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
4. Clean up uncured resin with suitable organic solvent such as MEK, acetone or other organic solvent.

SHELF LIFE AND STORAGE:

3 months at 25 °C or 6 months at 5 °C.

Specialty packaging may be less.

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

Many epoxy resin systems are prone to crystallization as epoxy resin is a super-cooled fluid. This condition may give the product a gritty or grainy appearance (or hazy in clear products). Products in this state will not usually cure to normal and expected properties. In extreme cases it may appear solid and cured. Fluctuating temperatures (within 5 to 50 °C) aggravate this phenomenon. Heating the individual component to 50 to 60 °C while stirring can usually restore products to original state. Storage at 25 +/- 10 °C is optimum for most products.