

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

DESCRIPTION:

ResinLab[®] *EP1290RC Gray* is a two-part mineral filled epoxy adhesive designed to be compliant to the REACH regulation, and as of the date of this document it contains no raw materials listed on the ECHA Substances of Very High Concern list. This formula also complies with the ROHS 3 Directive (EU) 2015/863.

EP1290RC Gray cures at room temperature to a tough, semi-flexible material that can withstand vibration and impact. It has good wetting to most surfaces and is free flowing to penetrate cavities, self-level and release trapped air. It also has good resistance to water, salt spray, inorganic acids and bases and most organic solvents. It will have excellent bonding to metals and plastics.

EP1290RC Gray was formulated to a 1A:1B volume mix ratio for use in side-by-side dispensing cartridges and meter/mix and dispense equipment. *EP1290RC Gray* will reach handle cure at room temperature within 16 – 24 hours. Cure time can be accelerated by the application of heat. Times and temperatures from 2 hours at 65 °C to 20 minutes at 100 °C are typical for most applications. Time to heat substrate must be taken into account. Cooler temperatures will also 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	Gray	Visual
Mix Ratio	Part A to Part B	Calculated
Mix Ratio by weight	1.02 to 1	
Mix Ratio by volume	1 to 1	
Cure Schedule	16-24 hrs @ 25 °C for handle cure 48-72 hrs @ 25 °C for full cure 2 hrs @ 65 °C 20 min @ 100 °C	
Viscosity - Part A	115,000 cP	TA HR20 Rheometer 25mm parallel plate @
Viscosity - Part B	45,000 cP	1/s DCV6100723
Viscosity - Mixed	70,000 cP	
Specific Gravity - Part A	1.34	Calculated
Specific Gravity - Part B	1.32	
Specific Gravity - Mixed	1.33	
Gel Time 100cc Sample	95 minutes	455300005339/Gardco Gel Timer
Hardness	60 – 70 Shore D	455300006287/ASTM D2240
Glass Transition Temperature/Tg	18 °C	453560822409 by DSC

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Property:	Value:	Test Method or Source:
Tensile Properties:		4535601224470/ASTM D638
Strength	2,700 psi	
Elongation	22 %	
Modulus	125,000 psi	
Lap Shear Strength		4535601224468/ASTM D1002
0.010" Bond Line, Al to Al	3,600 psi	
Compressive Properties:		4535601224467/ASTM D695
Yield Strength	27,000 psi	
Ultimate Strength	27,000 psi	
Modulus	78,000 psi	
Electrical Resistivity:		455300006612/ASTM D257
Volume	5.7 x 10 ¹³ ohm-cm	@ 22 °C @ 55 %RH
Surface	5.5 x 10 ¹⁴ ohm/sq	
Dielectric Constant & Dissipation Factor:		455300006513/ASTM D150
@ 100 Hz	3.6, 0.05	
@ 100 kHz	3.0, 0.02	
Operating Temperature Range	-60 to 150 °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.

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INSTRUCTIONS:

1. Bring to room temperature prior to use.
2. Cartridge format: Mixer should be attached keeping the cartridge vertical and any air pocket purged this way. After the mixer contains material, the mixer tip can be dropped to dispense pre-bleed amount. Attach a new static mixer with each cartridge, then pre-bleed the first 3 inches of dispensed material or until a uniform color is obtained. Maintain adequate velocity during dispensing to ensure complete mixing.
3. Bulk format: stir until homogeneous weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. A power mixer is suggested such as a 500-1000 rpm device with a mix paddle sufficient to turn material and disperse any filler. Do not pour from mixing container, transfer to a new container as residual unmixed material may cause a tacky spot on the surface of the casting. Maintain adequate velocity during dispensing to ensure complete mixing.
4. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
5. Clean up uncured resin with suitable organic solvent such as MEK or acetone.

SHELF LIFE AND STORAGE:

12 months at 25 °C.
Specialty packaging may be less.

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.