TECHNICAL DATA SHEET EP1290 Clear

06/24/2015

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

DESCRIPTION:

Resinlab® EP1290 Clear is a two part unfilled epoxy adhesive designed for bonding metals and plastics. It cures at room temperature to a tough, semi-flexible material. It has good wetting to most surfaces and is free flowing to penetrate cavities, self-level and release trapped air. This product can withstand vibration and impact. It also has good resistance to water, salt spray, inorganic acids and bases and most organic solvents.

EP1290 Clear was formulated to a 1A:1B volume mix ratio for use in side-by-side dispensing cartridges and meter/mix and dispense equipment. EP1290 Clear 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	Clear/Amber	Visual
Mix Ratio **By weight** **By volume**	Part A to Part B 1.22 to 1 1 to 1	
Cure Schedule	2 hours @65 °C, 20 minutes @100 °C or 16-24 hours at room temperature	
Viscosity – Part A **Viscosity – Part B** **Viscosity - Mixed**	50,000 cps 7,500 cps 30,000 cps (estimated)	Brookfield Viscosity/R050-12 RVT #7, 2.5 RPM
Specific Gravity – Part A **Specific Gravity – Part B** **Specific Gravity - Mixed**	1.16 0.99 1.08	Calculated
Pot Life	>2 hours / 50 g mass	WI R050-59
Glass Transition Temperature/Tg	31 °C	R050-61 by DSC
Hardness	60 Shore D	R050-17/ASTM D2240
Temperature Range	-60 °C to 150 °C	
Tensile Properties: **Strength** **Elongation** **Modulus**	 1,600 psi 40-50% 5,000-10,000 psi	R050-36/ASTM D638
Lap Shear Strength **0.100" bond line Al to Al**	2,500 psi	R050-37/ASTM D1002
Compressive Properties: **Strength** **Modulus**	 20,000 psi 13,000-18,000 psi	R050-38/ASTM D695

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INSTRUCTIONS:

1. Bring both components to room temperature prior to mixing. Cartridges should be stored in a vertical position to allow any air to accumulate at the tip. 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. Ease of dispensing is greatly affected by ambient/material temperatures.

2. If used in bulk, weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. 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. If the product is used in a side-by-side cartridge, 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. 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: 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.