



AN ELLSWORTH ADHESIVES COMPANY 

TECHNICAL DATA SHEET EP1325 & EP1325LV

03/29/2009

W186 N11687 MORSE DRIVE GERMANTOWN, WI 53022
262-502-6610 FAX 262-502-4743

DESCRIPTION:

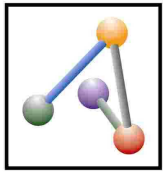
Resinlab™ EP1325 and EP1325LV are one part thixotropic, heat curing epoxy adhesives. They can also be used as a small mass potting compounds, staking or damming adhesives, or polymer systems where the application requires low shrinkage and excellent adhesion to a wide variety of plastics, metals and circuit board materials. These products give very good environmental protection and dielectric properties over a wide temperature range. The primary difference between the two versions is the LV version has a lower high shear viscosity (higher press flow rate) to provide easier dispensing. The amount of sag upon curing is the same.

TYPICAL PROPERTIES:

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

<u>PROPERTY:</u>	<u>VALUE:</u>		<u>TEST METHOD:</u>		
	<u>EP1325</u>	<u>EP1325LV</u>			
Color	Black	Black			
Viscosity	500,000 cps 500,000 mPa·s RVT, #7, 2.5 RPM	250,000 cps 250,000 mPa·s RVT, #7, 2.5 RPM	TM R050-12		
Specific Gravity	1.3	1.3	TM R050-16		
Hardness Scale	85 Shore-D	85 Shore -D	TM R050-17		
Water Absorption 24 hours	0.17 %	0.11 %	TM R050-35		
Temperature Range **	-40 to 150°C	-40 to 150°C			
Tensile	PSI	N/mm²	PSI	N/mm²	TM R050-36
	Yield Strength	2,500 17.2	5,000 34.5		
	Ultimate Strength	4,800 33.1	6,500 44.8		
	Break Strength	4,800 33.1	6,500 44.8		
	Elongation At Break	0-1 %	0-1 %		
Modulus	700,000 PSI 4,830 N/mm ²	700,000 PSI 4,830 N/mm ²			
Tensile Lap Shear (2024 T3 Al Abraded / MEK Wipe)	1,500 10.3	1,800 12.4	TM R050-37		

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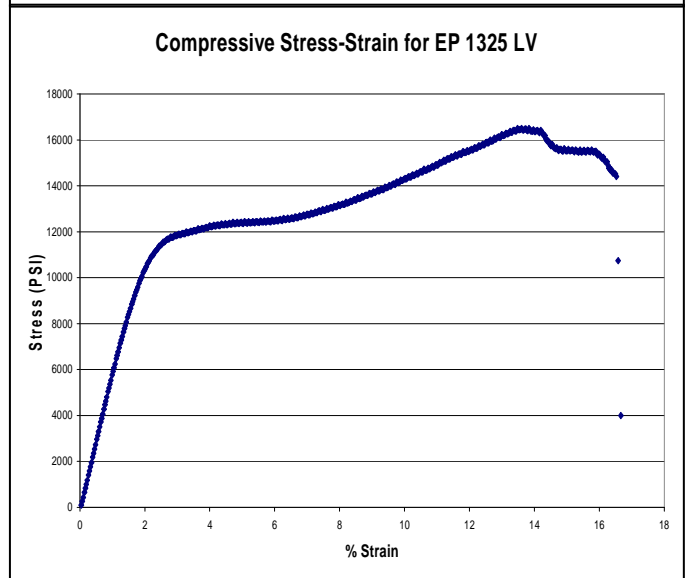
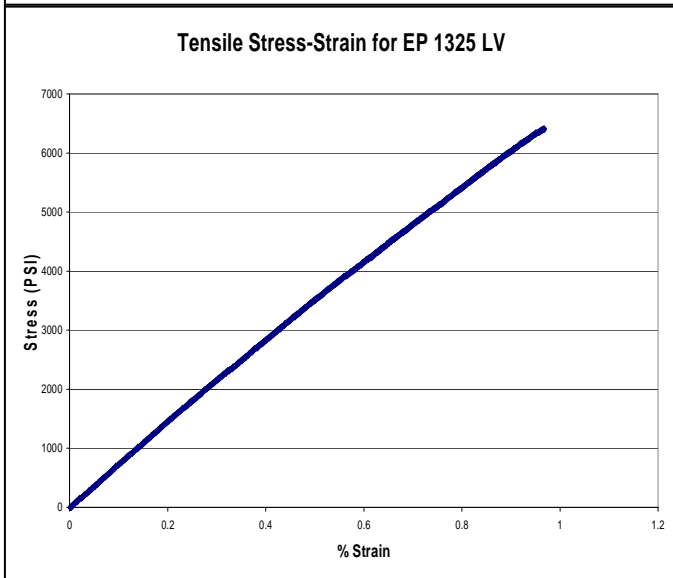
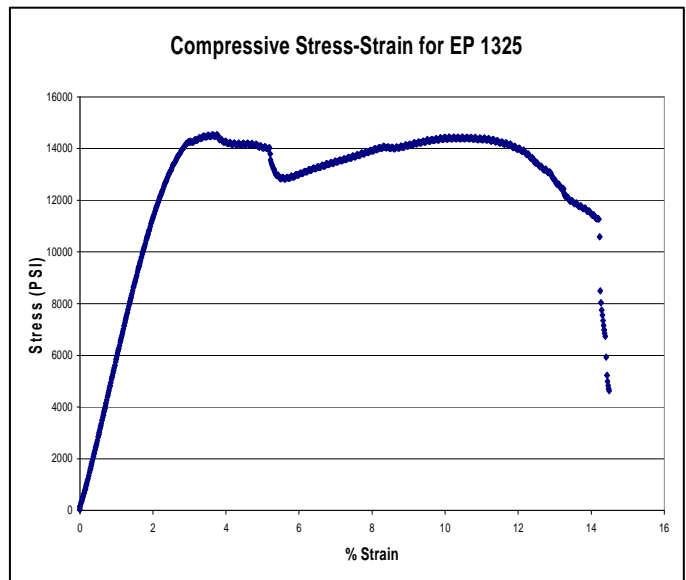
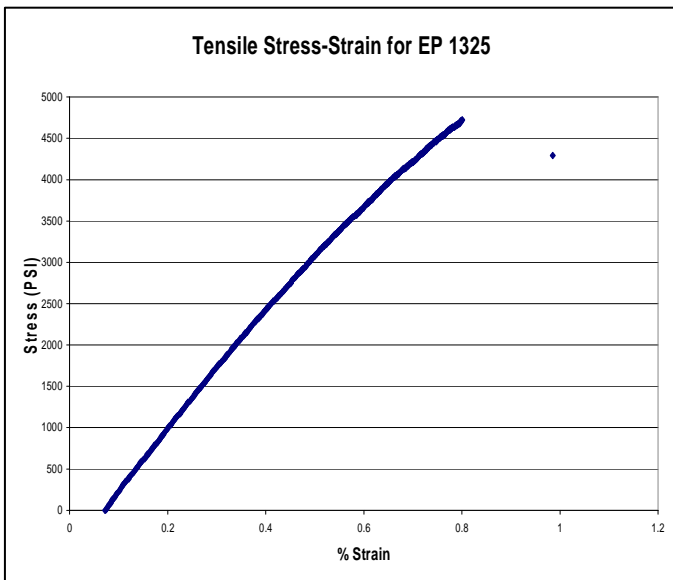
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	PSI	N/mm ²	PSI	N/mm ²	
Compressive					TM R050-38
Yield Strength	12,500	86.2	13,000	89.7	
Ultimate Strength	15,000	103.4	17,000	117.2	
Break Strength	12,000	82.8	14,000	96.6	
Modulus	600,000 PSI		600,000 PSI		
	4,140 N/mm ²		4,140 N/mm ²		



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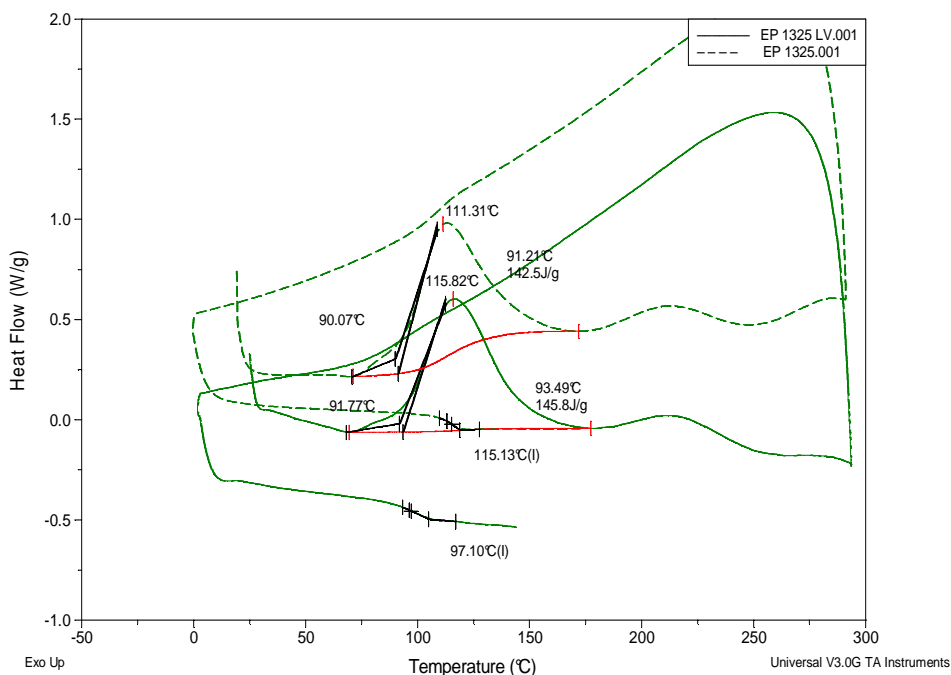
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<u>PROPERTY:</u>	<u>VALUE:</u>		<u>TEST METHOD:</u>
	EP1325	EP1325LV	
Linear Coefficient of Thermal Expansion	48 ppm/°C *	48 ppm/°C *	
Thermal Conductivity	0.208 BTU/(hr-ft·°F) * 0.36 W/m° K *	0.208 BTU/(hr-ft·°F) 0.36 W/m° K *	
Dielectric Constant (25°C, 100Hz)	3.5 *	3.5 *	
Dielectric Strength	440 V/mil * 17.3 kV/mm *	440 V/mil * 17.3 kV/mm *	
Volume Resistivity ohm-cm	8 x 10 ¹⁴ *	8 x 10 ¹⁴ *	
Glass Transition Temp	115°C	97°C	TM R050-25
Exothermic Energy	142.5 J/g	145.8 J/g	
Onset Temp (by DSC)	90°C	91°C	



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Cure Schedule: 5 - 10 minutes @ 150°C
 or 15 minutes @ 120°C
 or 30 minutes @ 110°C

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

Note: EP1325 can withstand short term exposure (less than 7 days) to temperatures up to 40°C without detriment. EP1325LV is much more sensitive to excursions above room temperature and should be protected from this.

INSTRUCTIONS:

1. Bring to room temperature prior to use.
2. Apply heat to cure.
3. Clean up uncured resin with suitable organic solvent such as MEK, acetone or other organic solvent.

* 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.

Notes:

Values presented above are considered to be typical properties, not to be used for specification purposes. Contact our Technical Department for further information.

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 phenomena. 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.

<u>Shelf Life:</u>	<u>EP1325</u>	<u>EP1325LV</u>
	6 months at 5°C or less	6 months at 5°C or less
	3 months at 25C	1 month at 25°C