

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

**DESCRIPTION:**

*Resinlab*<sup>™</sup> EP1026 Clear is a two part unfilled epoxy adhesive designed for high speed bonding of metals, ceramics, and most plastics. It cures to a tough semi-rigid material, and is free flowing in viscosity. It gives good resistance to water, salt spray, inorganic acids and bases, and most organic solvents. It was especially formulated to a 1:1 mix ratio for use in either MMD equipment or side-by-side dual cartridges for easy dispensing.

A handling cure is normally achieved at room temperature within 20-30 minutes with full cure in 24 hours. An elevated temperature cure schedule can be used to reach final properties quickly.

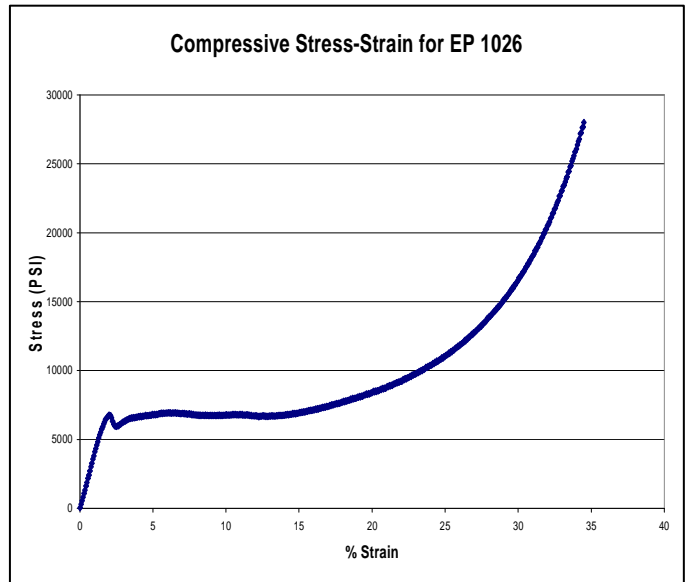
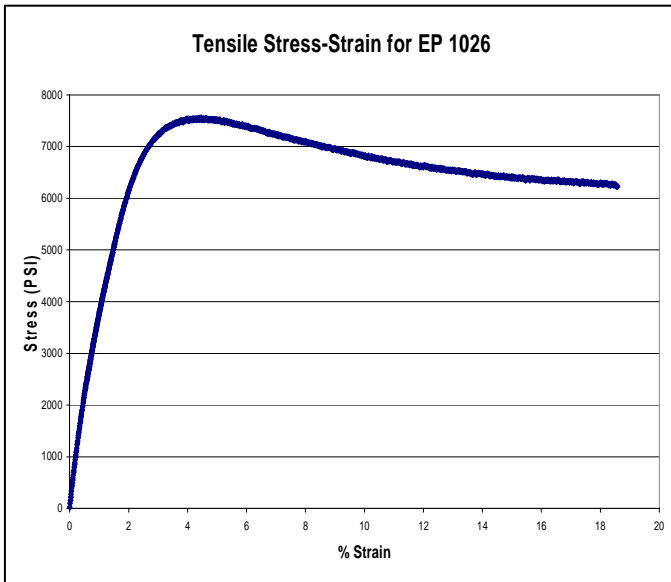
**TYPICAL PROPERTIES:**

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

<u>PROPERTY:</u>		<u>VALUE:</u>	<u>TEST METHOD:</u>
Color		Clear	
Viscosity			TM R050-12
RVT, #6, 2.5 RPM	Part A	16,000 cps (mPa-s)	
RVT, #7, 2.5 RPM	Part B	15,000 cps (mPa-s)	
	Mixed	15,500 cps (mPa-s)	
Specific Gravity	Part A	1.16	TM R050-16
	Part B	1.12	
	Mixed	1.14	
Pot Life		3-5 min.	TM R050-19
Mass		25 grams	
Hardness		85	TM R050-17
Scale		Shore-D	
Water Absorption		1.56 %	TM R050-35
24 hours			
Temperature Range**		-40 to 90°C	

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<u>PROPERTY:</u>	<u>VALUE:</u>		<u>TEST METHOD:</u>
Tensile	<b>PSI</b>	<b>N/mm<sup>2</sup></b>	TM R050-36
Yield Strength	4,000	27.6	
Ultimate Strength	7,500	51.7	
Break Strength	6,500	44.8	
Elongation At Break	10-20 %		
Modulus	450,000	3,100	
Lap Shear Strength (2024 T3 Al Abraded / MEK Wipe)	2,500	17.2	TM R050-37
Compressive			TM R050-38
Yield Strength	4,000	27.6	
Ultimate Strength	> 28,000	> 195	
Break Strength	> 28,000	> 195	
Modulus	200,000	1,380	



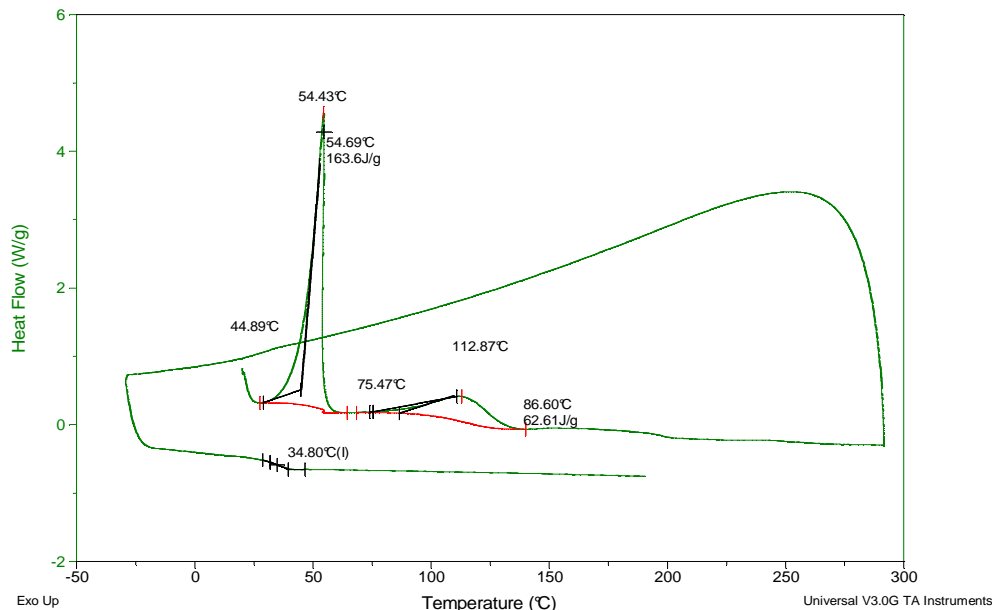
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<u>PROPERTY:</u>	<u>VALUE:</u>	<u>TEST METHOD:</u>
Linear Coefficient of Thermal Expansion	60 ppm/°C (below Tg)* 209 ppm/°C (above Tg)*	
Thermal Conductivity	0.107 BTU/(hr-ft·°F) * 0.185 W/m·K *	
Dielectric Constant (25C, 100Hz)	4.5 *	
Dielectric Strength	410 V/mil 16.1 kV/mm *	
Volume Resistivity	8 x 10 <sup>14</sup> ohm-cm *	
Glass Transition Temp	34°C	TM R050-25
1 <sup>st</sup> Exothermic Energy	163.6 J/g	
1 <sup>st</sup> Onset Temp (by DSC)	44°C	

Sample: EP 1026  
Size: 13.7000 mg  
Method: HP DSC  
Comment: 300 Full Cure + Tg

DSC

File: Z:\DSC\EP 1026\EP 1026.001  
Operator: NVo  
Run Date: 24-Aug-07 10:23



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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 mixer contains material, mixer tip can be dropped to dispense pre-bleed amount.
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 surface of casting. If product is used in a side-by-side cartridge, attach a new static mixer with each cartridge, 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.

**SIDE - BY - SIDE CARTRIDGE SUITABILITY RATING**

**POOR FAIR AVERAGE GOOD EXCELLENT**

This rating scale is a general guideline to give the user an expected level of success in a typical bench-top dispensing scenario.

Important process variables to consider are: Cartridge type and size, wall thickness; manual or pneumatic gun type; static mixer design and dimensions; product viscosity spread and ratio; shot size, shot frequency, flow rate; temperature range during use.

This scale also address's product stability in a cartridge. Factors such as filler content and settling rate, storage temperature and cartridge orientation are important factors which affect this.

It is important for the user to define the optimum static mix for each dispensing process, a change in any of the above variables can affect the mix quality. Dispensing the product on a flat surface using the dispensing pattern can help show the quality of mixing in terms of thoroughness and lead/lag consistency.

**MIX RATIO:** Part A to B  
by weight 1 to 1  
by volume 1 to 1

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



# TECHNICAL DATA SHEET EP1026 Clear

03/27/2009

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\*\* 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.

#### **SHELF LIFE:**

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