



AN ELLSWORTH ADHESIVES COMPANY 

TECHNICAL DATA SHEET EP1199 Black

03/26/2009

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

DESCRIPTION:

Resinlab™ EP1199 Black is a two part unfilled epoxy adhesive designed for bonding of metals, ceramics and most plastics. This product gives good resistance to water, salt spray, inorganic acids and bases and most organic solvents. This product gives better water and temperature resistance than standard 5 minute epoxy.

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 30 - 60 minutes with full cure in 24 hours. An elevated temperature cure schedule can be used to reach final properties quickly.

TYPICAL PROPERTIES:

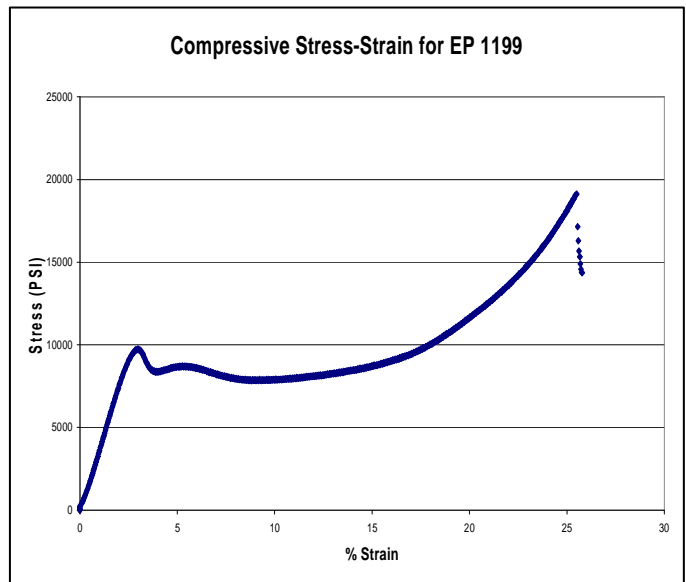
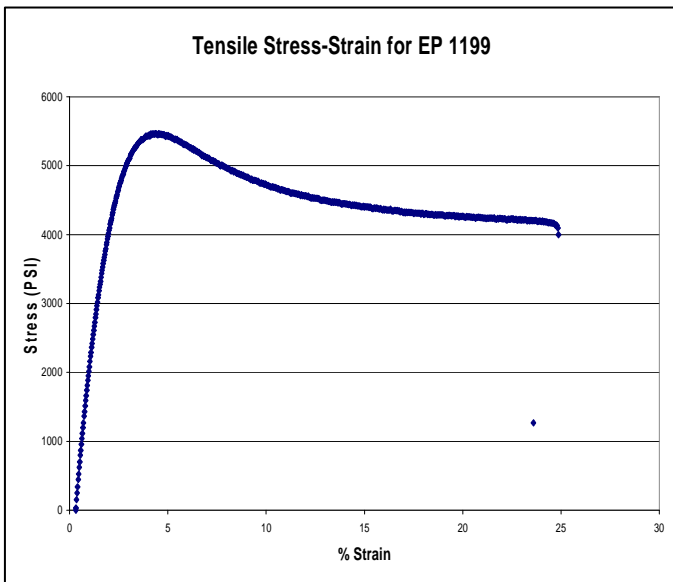
All properties given are at 25°C unless otherwise noted.

<u>PROPERTY:</u>		<u>VALUE:</u>	<u>TEST METHOD:</u>
Color		Black	
Viscosity			TM R050-12
RVT, #5, 2.5 RPM	Part A	15,000 cps (mPa-s)	
RVT, #4, 2.5 RPM	Part B	3,000 cps (mPa-s)	
	Mixed	9,000 cps (mPa-s)	
Specific Gravity	Part A	1.16	TM R050-16
	Part B	0.97	
	Mixed	1.06	
Pot Life		8-12 min.	TM R050-19
Mass		50 grams	
Hardness		80	TM R050-17
Scale		Shore-D	
Water Absorption		0.28 %	TM R050-35
24 hours			
Temperature Range**		-40 to 150°C	

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<u>PROPERTY:</u>	<u>VALUE:</u>		<u>TEST METHOD:</u>
Tensile	PSI	N/mm²	TM R050-36
Yield Strength	3,500	24.1	
Ultimate Strength	5,500	37.9	
Break Strength	4,000	27.6	
Elongation At Break	10-20 %		
Modulus	320,000	2,070	
Lap Shear Strength (2024 T3 Al Abraded / MEK Wipe)	1,500	10.3	TM R050-37
T-Peel	3 – 5 pli *		
Compressive			TM R050-38
Yield Strength	9,500	65.5	
Ultimate Strength	20,000	137.9	
Break Strength	20,000	137.9	
Modulus	400,000	2,760	





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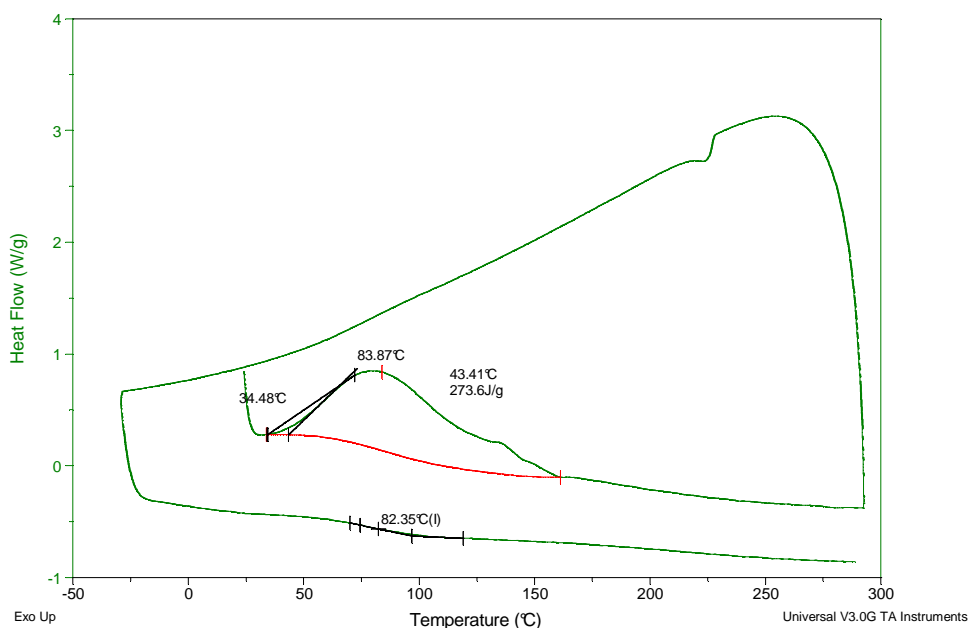
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<u>PROPERTY:</u>	<u>VALUE:</u>	<u>TEST METHOD:</u>
Linear Coefficient of Thermal Expansion	50 x ppm/°C *	
Dielectric Constant (25°C, 100Hz)	3.0 *	
Dielectric Strength	420 V/mil * 16.5 kV/mm *	
Volume Resistivity	10 x 10 ¹⁴ ohm-cm *	
Glass Transition Temp	82°C	TM R050-25
Exothermic Energy	273.6 J/g	
Onset Temp (by DSC)	34°C	

Sample: EP 1199
Size: 15.1000 mg
Method: 300 C full cure slow + Tg
Comment: 300 Full Cure + Tg

DSC

File: Z:\...DSC\EP 1199\EP 1199.001
Operator: NVo
Run Date: 17-Aug-07 09:08



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