

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

**DESCRIPTION:**

*Resinlab*® SEC1244 is a silver filled, two component, elevated temperature curing epoxy adhesive. It provides excellent electrical conductivity useful in many electronic applications. It is a smooth 100% solids thixotropic solvent free paste provided in a 1:1 weight ratio.

This product will cure very quickly at high temperatures.

SEC1244 provides the additional benefit of very high thermal conductivity due to its high loading of pure silver. Alloys are not used as they have been proven to be less reliable. It gives good environmental protection while having tenacious adhesion to various metals and other common assembly materials.

**TYPICAL PROPERTIES:**

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

<b>Property:</b>	<b>Value:</b>	<b>Test Method or Source:</b>
<b>Color</b>	Silver	Visual
<b>Mix Ratio</b>	Part A to Part B	Calculated
<b>By weight</b>	1.05 to 1	
<b>By volume</b>	1 to 1	
<b>Cure Schedule</b>	5 minutes @150 °C 15 minutes @ 120 °C 60 minutes @ 100 °C	
<b>Viscosity – Mixed</b>	234,000 cps @2.5 rpm	Brookfield Viscosity 455300005420
<b>Viscosity – Mixed</b>	126,000 cps @5.0 rpm	Brookfield Viscosity 455300005420
<b>Viscosity – Mixed</b>	298,000 cps @1/s	Rheometer parallel plate 25mm@1/s 455300006291
<b>Specific Gravity – Part A</b>	4.09	Calculated
<b>Specific Gravity – Part B</b>	4.33	
<b>Specific Gravity - Mixed</b>	4.21	
<b>Pot Life</b>	>4 hours	Rheometer parallel plate 25mm@1/s 455300006291
<b>Glass Transition Temperature/Tg</b>	98 °C	453560822409 by DSC
<b>Hardness</b>	90 Shore D	455300006287/ASTM D2240
<b>Water Absorption</b>	<0.2% after 24 hours	457561824543/ASTM D570
<b>Tensile Properties:</b>		455300006285/ASTM D638
<b>Strength</b>	5,000 psi	
<b>Elongation</b>	1-2%	
<b>Modulus</b>	600,000 psi	
<b>Lap Shear Strength</b>		455300005642/ASTM D1002
<b>0.010" bond line Al to Al</b>	500 psi	
<b>Compressive Properties:</b>		455300006265/ASTM D695
<b>Yield Strength</b>	10,500 psi	
<b>Compressive Strength</b>	13,500 psi	

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<b>Modulus</b>	750,000 psi	
<b>Thermal Conductivity by LFA</b>	3.0 W / (m.K)	453560822409/ASTM E1461
<b>Volume Resistivity</b>	0.0006 ohm-cm*	455300006612/ASTM D257
<b>Cured: 15 minutes @ 120 °C</b>		Estimated
<b>Coefficient of Thermal Expansion by TMA</b>	40 ppm/ °C (below Tg)	455300005340 /ASTM E831 TMA, 5 °C/min
<b>Temperature Range</b>	-40 to 180 °C**	

\* 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.

\*\*\* 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.

#### **INSTRUCTIONS:**

1. Bring both components to room temperature prior to mixing
2. 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. 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:**

6 months at 25 °C

Specialty packaging may be less.

NOTE: When supplied in non-PMF two-part packaging, Part A should be stored between 15 and 35 °C to prevent crystallization or separation. In the event of crystallization, warm Part A to 40-50 °C and stir until uniform.