

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

DESCRIPTION:

Resinlab® SEC1233 is a silver filled, two component, room temperature curing epoxy adhesive. SEC1233 has excellent electrical conductivity useful in many electronic applications. It is a soft 100% solids thixotropic paste provided in a 1:1 ratio. It is recommended to mix by weight but extrusion of equal length beads from syringes is commonly used as a method of measurement as small quantities are commonly used. It also can be packaged in small side-by-side dispensing cartridges for use with static mixers.

This system is also available in a pre-mixed and frozen format.

SEC1233 provides exceptionally high conductivity starting immediately after mixing and improves during the curing process. It also has high thermal conductivity due to its high silver content. It provides environmental protection and has tenacious adhesion to various metals and other common assembly materials.

TYPICAL PROPERTIES:

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

Property:	Value:	Test Method or Source:
Color	Silver	Visual
Mix Ratio	Part A to Part B	Calculated
By weight	1 to 1	
By volume	1 to 1	
Cure Schedule	Full cure at room temperature in 24-72 hours 1 hour @ 60 °C	
Viscosity – Mixed@2.5rpm	172,000 cps	453560822626 Brookfield Viscosity
Viscosity – Mixed@5.0rpm	82,250 cps	453560822626 Brookfield Viscosity
Viscosity – Mixed@10.0rpm	29,500 cps	453560822626 Brookfield Viscosity
Viscosity – Mixed @1/s	582,000 cps	455300006291 Rheometer parallel plate 25mm@ 1/s
Specific Gravity – Part A	3.88	Calculated
Specific Gravity – Part B	3.97	
Pot Life, defined as the time it takes for initial mixed viscosity to double	> 4 hours	455300006291 Rheometer parallel plate 25mm @ 1/s
Glass Transition Temperature/Tg	10 °C	453560822409 by DSC
Hardness	70 Shore D	455300006287/ASTM D2240
Water Absorption	<0.2% after 24 hours	457561824543/ASTM D570
Tensile Properties:		455300006285/ASTM D638
Strength	450 psi	
Elongation	20-30%	
Modulus	10,000 psi	
Lap Shear Strength 0.010" bond line Al to Al	600 psi	455300005642/ASTM D1002
Compressive Properties:		455300006265/ASTM D695
Yield Strength	2,000 psi	
Compressive Strength	9,000 psi	
Modulus	11,000 psi	
Thermal Conductivity by LFA	4.65 W / (m.K)	453560822409/ASTM E1461
Volume Resistivity Cured: 1 hour @ 60 °C	0.0016 ohm-cm	455300004460/Jandel 4 point probe

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24 hours @ 25 °C	0.0016 ohm-cm*	
96 hours @ 25 °C	0.0009 ohm-cm*	
Coefficient of Thermal Expansion by TMA	63 ppm/ °C (below Tg) 120 ppm/ °C (above Tg)*	455300005340 /ASTM E831 TMA, 5 °C/min
Temperature Range	-40 to 150 °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. Stir to assure homogeneous consistency.
2. Weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. Small amounts can be mixed by dispensing out equal length beads on a glass slide and using a metal spatula to mix.
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:

As two-part side by side or dual syringes: 3 months DOP @ 5 °C (store horizontally)

As a jar kit or Twinpak: 6 months DOP @ 25 °C

As one-part pre-mixed and frozen: 6 months DOP @ -40 °C

Specialty packaging may be less.

NOTE: Product will tolerate ambient conditions during shipment of up to 7 days.