

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

DESCRIPTION:

Resinlab® SEC1222 is a silver filled, two component epoxy adhesive designed to cure completely at room temperature. It 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.

SEC1222 provides exceptionally high electrical conductivity starting immediately after mixing that improves as the curing process proceeds. It also has the additional benefit of very high thermal conductivity due to its high silver loading. 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.

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	24-72 hours @25 °C 1 hour @ 60 °C	
Viscosity – Mixed	560,000 cps	Rheometer parallel plate 25mm@1/s 455300006291
Specific Gravity – A	3.88	Calculated
Specific Gravity – B	3.93	
Specific Gravity – Mixed	3.91	
Pot Life	45 minutes	453560822627
Glass Transition Temperature/Tg	17 °C	453560822409 by DSC
Hardness	70 Shore D	455300006287/ASTM D2240
Water Absorption	0.1% after 24 hours	457561824543/ASTM D570
Tensile Properties:		455300006285/ASTM D638
Strength	1,000 psi	
Elongation	3-5%	
Modulus	50,000 psi	
Lap Shear Strength		455300005642/ASTM D1002
0.010" bond line Al to Al	850 psi	
Compressive Properties:		455300006265/ASTM D695
Yield Strength	1,300 psi	
Compressive Strength	9,900 psi	
Modulus	65,000 psi	
Thermal Conductivity by LFA	3.9 W / (m.K)	453560822409/ASTM E1461
Volume Resistivity	0.003 ohm-cm*	455300006612/ASTM D257
Cured: 8 hours @ 25°C		Estimated
Coefficient of Thermal Expansion by TMA	66 ppm/ °C (below Tg) 160 ppm/ °C (above Tg)	455300005340 /ASTM E831 TMA, 5 °C/min

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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 are mixed by laying out equal length beads on a glass slide and using a metal spatula to mix.
3. Allow to cure undisturbed.
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

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