

Technical Data Sheet
Electronic and Engineering
Materials

EpoxyLite 810-1 Epoxy Resin

Three Component, High Temperature Epoxy, Room Temperature Setting

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Description

EpoxyLite 810-1 is a three component epoxy resin system designed for use with in high temperature environments. It is primarily used in adhesive applications.

Uses

- Adhesion of various substrates

Cured Properties

The 810-1 is a designed to be a high temperature adhesive. It has exhibited excellent properties up to 260°C.

Mixing

The EpoxyLite 810-1 is a three component kit. Parts A is a heavy liquid. Part B is non-homogenous blend of powders. Part C is a low viscosity liquid.

Recommended Cure

4 Hr. @ 25°C. plus 2 Hrs. @ 135°C

Features and Benefits

- High temperature resistant
- Room temperature gel

Application Methods

- Brush or trowel

Storage/Shelf Life

This resin system should be stored at a 25°C in a dry controlled environment out of direct sunlight. This material should be suitable for use stored under these conditions in the original sealed containers for six (6) months from the date of shipment. Failure to store this product as recommended above may lead to deterioration in product performance and invalidate shelf life.

Properties of Material Supplied

<i>Test</i>	<i>Value</i>			<i>Units</i>
	<i>E 810-1 Part A</i>	<i>C 810-1 Part B</i>	<i>C 810-1 Part C</i>	
Viscosity - 20 rpm – 25°C (77°F) (ASTM D2196), typical	10,000 – 15,000	Powder	100	Cp
Weight per gallon @ 25°C (77°F) (ASTM D1475), typical	9.8	20.3	9.4	Pounds
Flash Point (ASTM D93)	>93(200)	>93(200)	74(165)	°C(°F)
Mix ratio (pbw)	Do not mix less than the packaged amounts of Parts A and B.			

TYPICAL PROPERTIES

The table below gives the approximate gel times of the 810-1 Parts A and B mixed with various percentages of the packaged amount of Part C.

	Percent of Part C	Value	Units
Gel Time at 25°C	25	15 – 25	Minutes
	50	8 – 12	
	100	3 – 5	

Mechanical Properties –

Test	Value	Units
Lap Shear Strength – etched aluminum (ASTM D1002) Cured 48 hours at 25°C	300	PSI
Lap Shear Strength – etched aluminum (ASTM D1002) Cured 48 hours at 25°C + 2 hours at 122°C (250°F)	1700	PSI
Hardness, Shore D (ASTM 2240)	90	

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