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# TECHNICAL DATA SHEET

## SOLARITE EP-0596UF SOLARCURE-1 & 2

**DESCRIPTION:** Solarite EP-0596UF is a low viscosity epoxy potting and casting compound designed for excellent penetration that can be room temperature or heat cured depending upon the hardener chosen. Room temperature cure is attained with Solarcure 1. When cured with Solarcure 2 a heat activated product with service temperature upto 155C can be produced. EP-0596UF can be cured with various other custom Solarcure hardeners to adjust viscosity, hardness, cure time, exotherm, service temperature, thermal shock resistance etc.

### SPECIFICATIONS—UNCURED:

	<b>Part A</b>	<b>Solarcure-1</b>	<b>Solarcure-2</b>
Color, Visual	Red-Brown	Clear	Amber
Mix Ratio—By Weight	100	15-16	25-26
Specific Gravity	1.14	0.99	0.98
Viscosity, cps, ASTM-D-2393	3500	70-90	200-220
Mixed Viscosity, cps, ASTM-D-1084		1400	1500
Gel Time, 25°C, Hours		0.6-0.75	2-3
Shelf Life, 25°C, Months	12	12	12

### SPECIFICATIONS—CURED:

#### PHYSICAL:

Durometer, ASTM-D-2240	85D	85D
Compressive Strength, psi, ASTM-D-695	14,050	15,200
Tensile Strength, psi, ASTM-D-638	10,500	11,200
Tensile Elongation, Percentage, ASTM-D-638	2.0	5.0
Thermal Conductivity, BTU-in/ft <sup>2</sup> (Hour) (°F)	1.6	1.6
Flammability, UL 94V0	na	na
Service Temperature, °C	105	155

#### ELECTRICAL PROPERTIES:

Dielectric Strength, Volts/Mil, ASTM-D-149	425	430
Dielectric Constant, 1 kHz, ASTM-D-150	4.0	4.2
Dissipation Factor, 1 kHz, ASTM-D-150	0.035	0.035
Volume Resistivity, ohm/cm, ASTM-D-257	1x10 <sup>15</sup>	1x10 <sup>15</sup>

### **USE INSTRUCTIONS:**

1. Pre-mix contents of each container before use to ensure the entire contents are uniform.
2. Measure out components of the product by weight and mix thoroughly together .
3. De- air if necessary at 760 mm of Hg for 5-10 minutes.
4. Pour into cavity to be encapsulated.

### **CURE SCHEDULE:**

Solarcure 1: Initial cure is achieved in 12-24 hours at room temperature. Final cure takes at least 7-10 days at 72F. To accelerate the cure higher temperatures can be used, 2-3 hours at 150 F is usually sufficient. after allowing the product to gel at room temperature for 3 hours.

Solarcure 2: Highest Temperature performance 2 [hours@200F](#) then 2 hours@300F

### **STORAGE REQUIREMENTS:**

Store in a cool dry place.

### **IMPORTANT:**

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### **HEALTH CAUTION:**

Avoid breathing possible fumes, mists and vapors which can cause severe respiratory damage. Use of NIOSH approved breathing apparatus is required for more than minimal exposure. Always work in areas with adequate ventilation to allow dissipation of polyamine and other chemical fumes, and where applicable, solvent fumes. Use of goggles, protective garments, rubber gloves, protective cream is required. If material gets into eyes, flush thoroughly with clear water for twenty (20) minutes; then seek medical treatment. Avoid skin contact. Material can cause contact dermatitis. Always wash exposed areas immediately, using warm water and soap, followed by rinsing with clean water. Observe all safety precautions. It is important when using solvent based materials or solvents to keep away from open flame or ignition source.

**PLEASE REFER TO MATERIAL SAFETY DATA SHEET FOR FURTHER FIRST AID INFORMATION.**

FOR CHEMICAL EMERGENCY  
CALL CHEMTREC (DAY OR NIGHT) 800-424-9300.