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TECHNICAL DATA SHEET

SOLARITE EP-211FR SOLARCURE-1 & 2

DESCRIPTION: Solarite EP-211FR is a moderate to low viscosity epoxy potting and casting compound that can be room temperature or heat cured depending upon the hardener chosen. When cured with Solarcure-1 @ 72F EP-211FR is Underwriters Laboratories UL-94V-0 recognized for flammability. When cured with Solarcure 2 a heat curable product with service temperature upto 155C can be produced. EP-211FR can be cured with various other custom Solarcure hardeners to adjust viscosity,hardness,curetime, exotherm,service temperature, thermal shock resistance etc.

SPECIFICATIONS—UNCURED:

	Part A	Solarcure-1	Solarcure-2
Color, Visual	Black	Clear	Amber
Mix Ratio—By Weight	100	7	12
Viscosity, cps, ASTM-D-2393	6,000	70-90	200-220
Specific Gravity	1.45	0.98	0.98
Gel Time, 25°C, Hours		1.3-1.75	2-3
Mixed Viscosity, cps, ASTM-D-1084		2000	3000
Shelf Life, 25°C, Months	12		

SPECIFICATIONS—CURED:

PHYSICAL:

Durometer, ASTM-D-2240	80-85D	85-90D
Compressive Strength, psi, ASTM-D-695	13,700	14100
Tensile Strength, psi, ASTM-D-638	10,500	11200
Tensile Elongation, Percentage, ASTM-D-638	2.0	5.0
Thermal Conductivity, BTU-in/ft ² (Hour) (°F)	4.3	4.2
Flammability, UL 94V0	Yes	n/a
Service Temperature, °C	105	155

ELECTRICAL PROPERTIES:

Dielectric Strength, Volts/Mil, ASTM-D-149	415	425
Dielectric Constant, 1 kHz, ASTM-D-150	4.5	4.4
Dissipation Factor, 1 kHz, ASTM-D-150	0.02	0.02
Volume Resistivity, ohm/cm, ASTM-D-257	1x10 ¹⁵	1x10 ¹⁵

USE INSTRUCTIONS:

1. Pre-mix contents of each container before use to ensure the entire contents are uniform. Some settling may occur upon prolonged storage the is soft and easily incorporated.
2. Measure out components of the product by weight and mix thoroughly together to incorporate any settled material.
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@180F](#) then 3 hours@300F

STORAGE REQUIREMENTS:

This product has a tendency to settle upon storage and shipment, material should be mixed well prior to use. 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.