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 0605 a room temperature curing product that will withstand service temperature up to 155C after a postcure @300F can be produced. EP-211FR can be cured with various other custom Solarcure hardeners to adjust viscosity, hardness, cure time, exotherm, service temperature, thermal shock resistance etc.

SPECIFICATIONS—UNCURED:

Part A | Solarcure-1 | 0605
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Color, Visual | Black | Clear | Amber
Mix Ratio—By Weight | 100 | 7 | 15.6
Viscosity, cps, ASTM-D-2393 | 6,000 | 70-90 | 300-350
Specific Gravity | 1.45 | 0.98 | 0.98
Gel Time, 25°C, Hours | 1.3-1.75 | 1-2 |
Mixed Viscosity, cps, ASTM-D-1084 | 2000 | 2500 |
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 | 13,100
Tensile Strength, psi, ASTM-D-638 | 10,500 | 10,200
Tensile Elongation, Percentage, ASTM-D-638 | 2.0 | 5.0
Thermal Conductivity, BTU-in/ft² (Hour) (°F) | 4.3 | 4.0
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 but 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 0605:. Cure 6-8 hours at room temperature or 25 minutes at 150-180F then postcure a minimum of 3 hours @300F for 155C service temperature.

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:
The following supersedes any provision in your company’s forms, letters, and papers. SOLAR COMPOUNDS CORPORATION makes NO WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES of MERCHANTABILITY OR of FITNESS FOR A PARTICULAR PURPOSE FOR THIS PRODUCT. No statements or recommendations contained in the product literature are to be construed as inducements to infringe any relevant patent, now or thereafter in existence. UNDER NO CIRCUMSTANCES SHALL SOLAR COMPOUNDS CORPORATION BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES FROM ALLEGED NEGLIGENCE, BREACH of WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY, ARISING OUT of THE USE OR HANDLING of THIS PRODUCT. The sole liability of SOLAR COMPOUNDS CORPORATION for any claims arising out of the manufacture, use or sale of its products shall be to refund the buyer’s purchase price, provided such products have been demonstrated in SOLAR COMPOUNDS CORPORATION’S sole opinion, to justify such refund.

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.