



A QUAKER HOUGHTON COMPANY

**TECHNICAL BULLETIN**  
**Low Viscosity Black Epoxy System**  
**SS1803**

**Description**

EPMAR® SS1803 is a black, low viscosity, two component electronic grade potting compound. Excellent physical and electrical characteristics as well as easy handling make this resin/hardener combination ideal for the encapsulation of electronic modules. The components are: Resin-SA1803, Hardener-SB1803.

**Performance**

	<b>Part A</b>	<b>Part B</b>	<b>Mixed</b>
<b>Color</b>	Black	Amber	Black
<b>Specific Gravity</b>	1.16	1.01	1.12
<b>Viscosity at 25° C</b>	4,000 cps	225 cps	1,900 cps
<b>Note: Values not intended for use in specification preparation.</b>			

**Physical Characteristics**

<b>Hardness, Shore D</b>	85
<b>Heat Deflection Temperature</b>	72° C
<b>Tensile Strength</b>	8500 psi
<b>Flexural Strength</b>	16,200 psi
<b>Elongation at Break</b>	4.4%
<b>Coefficient of Linear Thermal Expansion</b>	39.9 / 180 Um/m-C (above / below T <sub>g</sub> )
<b>Dielectric Strength @ 25° C</b>	540 Volts per mil
<b>Dielectric Constant @ 23° C, 100 Hz / 1 Hz</b>	4.06 / 4.01
<b>Dissipation Factor @ 23° C, 100 Hz / 1 Hz</b>	0.012 / 0.019
<b>Volume Resistivity @ 23° C</b>	7.9 ohm cm (1 x 10 <sup>15</sup> )
<b>ARC Resistance (SS Electrode)</b>	103 seconds
<b>Mix Ratio</b>	100:42 parts by weight 2.07:1 parts by volume
<b>Pot Life</b>	30-40 minutes @ 25° C
<b>Cure Schedule</b>	3 hours @ 60° C 24 hours @ room temperature



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**Epoxy Potting Compound**  
**SS1844-UL**

**Warranty:**

The following warranty is made in lieu of all other warranties, either expressed or implied. This product is manufactured of selected raw materials by skilled technicians. Neither seller nor manufacturer has any knowledge or control concerning the purchaser's use of this product and no warranty is made as to the results of any use. The only obligation of either seller or manufacturer shall be to replace any quantity of this product, which is proved to be defective. Any claim of defective product must be received in writing within one (1) year from date of shipment. Neither seller nor manufacturer assumes any liability for injury, loss, or damage resulting from use of this product.

**Contact us for any additional application information.**

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