# Sumitomo Epoxy E 3812M-1

### Epoxy; Epoxide

Sumitomo Bakelite North America, Inc.

#### Message:

E 3812M-1 is a mineral and short fiberglass filled epoxy molding compound for low pressure encapsulation molding, featuring excellent dimensional stability, good thermal shock resistance, and good electrical insulation properties.

General Information			
Filler / Reinforcement	Glass Fiber		
	Mineral		
Features	Electrically Insulating		
	Good Dimensional Stability		
	Good Thermal Shock Resistance		
Appearance	Black		
	Granules		
Forms			
Processing Method	Compression Molding		
	Resin Transfer Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.86	g/cm³	ASTM D792
Apparent Density	0.95	g/cm³	ASTM D1895
Molding Shrinkage - Flow	0.35 to 0.50	%	ASTM D955
Water Absorption - 48 hr (50°C)	0.30	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	58.0	MPa	ASTM D638
Flexural Modulus	13000	MPa	ASTM D790
Flexural Strength (Break)	94.0	MPa	ASTM D790
Compressive Strength	213	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	16	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Annealed)	> 280	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength <sup>1</sup>			ASTM D149
<sup>2</sup>	16	kV/mm	
3	14	kV/mm	
Dielectric Constant <sup>4</sup> (1 MHz)	3.80		ASTM D150
Dissipation Factor <sup>5</sup> (1 MHz)	0.020		ASTM D150

Arc Resistance	178	sec	ASTM D495	
NOTE				
1.	60 Hz, Wet	60 Hz, Wet		
2.	Method A (Short-Time)			
3.	Method B (Step-by-Step)			
4.	Wet	Wet		
5.	Wet			

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#### Recommended distributors for this material

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