



THE GUND COMPANY

Manufacturers & fabricators of engineered material solutions

Item:	SMC Molded Insulators
Description:	Sheet Molding Compound (SMC) is a polymeric composite material made of a mixture of unsaturated polymer resin, processing additives, cross linked catalyst, shrink control polyester, mold release agent, fire retardant agent, color pigments, inorganic fillers, and glass chops. Its strong mechanical and electrical insulating properties make it an ideal material for supporting bus bars or other live electrical components. The material is compression molded into a variety of shapes which commonly include metallic inserts such as threaded inserts for mechanical connections and improved mechanical strength.

Material Properties (DMC)	Test Method	Values	PLC	Units
Specific Gravity	ASTM D-792	1.7		--
Glass Contents	--	25		%
Water Absorption (24 hours)	ASTM D-570	0.20		%
Tensile Strength	ASTM D-638	700		Kgf/cm ²
Flexural Strength	ASTM D-790	1,550		Kgf/cm ²
Izod Impact Strength	ASTM D-256	600		J/m
Compressive Strength	ASTM D-695	1,800		Kgf/cm ²
Dielectric Strength	ASTM D-149	12		kV/mm
Comparative Tracking Index	IEC-60112	> 600	0	V
Dry Arc Resistance	ASTM D-495	> 180		Seconds
Flammability Index	UL 94	V-0		--
Glow Wire Ignition Temp (Thickness > 3mm)	IEC-60695-2-13	960		°C
Hot Wire Ignition Test	ASTM D-3874	> 120	0	Seconds
Relative Temperature Index, Mechanical Strength (Thickness - 3mm)	UL - 746B	130		°C
Relative Temperature Index Electrical Strength (Thickness - 3mm)	UL - 746B	105		°C
High Voltage Arc Tracking Rate	UL - 746A	< 10	0	mm/min
High Current Arc Ignition	UL - 746A	> 120	0	mean # of arcs
Material Group	IEC - 60601	1		--
Pollution Degree	IEC - 60950	3		--
Insulation Class	as per NEMA	B		--
Working Temp	--	-40 - 135		°C