



MANUFACTURERS OF
ELECTRICAL INSULATION MATERIALS
 INSULATING COMPONENTS FOR
 POWER SYSTEMS EQUIPMENT

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MATERIAL DATA SHEET

Item: Grade SG-70 Ceramic Fiber Board

Description: SG-70 is a non-asbestos ceramic refractory reinforced with continuous fibers to increase the toughness, reliability, and overall performance of the ceramic composite. SG-70 can withstand extreme thermal shock, is chemically inert, unaffected by moisture, and non-wetting to non-ferrous metals.

Compared to Grade SG-50, the Grade SG-70 material has a more homogeneous fiber reinforcement structure that allows for intricate machining. It also has a higher service and ultimate use temperature than the SG-50 material.

		English units	SI Units
Availability:	Laminate Sheets:	Thickness: 0.125"–1"	3.2mm–25mm
		Sheet Sizes: 48"x48"	122cmx122cm
	Fabricated Parts:	The Gund Company custom fabricates insulation materials to the exact specifications and drawings of our customers.	

Key Characteristics:	Test Method	Units - English (SI)	Typical Values
Composition			Non-asbestos ceramic fiber
Al ₂ O ₃			70%
SiO ₂			20%
Other Metal Oxides			10%
Density		lbs/in ³ (g/cc)	0.075(2.1)
Maximum Operating Temperature		°F(°C)	2,500(1,370)
Structural Use Temperature		°F(°C)	1,430(775)
Compressive Strength	ASTM D-695	psi(MPa)	13,050(90)
Flexural Strength	ASTM D-790	psi(MPa)	8,400(58)
Porosity		%	35
Volume Resistivity	ASTM D-257	Ohm x cm	52 x 10 ¹⁰
Dielectric Strength (flatwise)	ASTM D-149	V/mil(kV/mm)	91(3.6)
Dielectric Constant	ASTM D-150		5.5
Thermal Conductivity(1,200 °F)	ASTM C-177	BTU/in/hr/ft ² °F	4.69

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