



Durostone[®] SG-200 (GPO-1)

HIGH STRENGTH, HIGH TEMPERATURE POLYESTER GLASS LAMINATE

SG200 (GPO-1) Polyester Glass Laminate is a high strength and high temperature polyester glass rigid insulation that maintains excellent retention of properties at high temperatures.

Similar to FHT, but also offers much higher mechanical strengths with temperature ratings of up to 210°C. Has a UL Temperature Index of 210°C Electrical and 210° Mechanical.



Features

- High strength
- High heat resistance
- Easily fabricated
- Excellent retention of properties at elevated temperatures

Applications

- Dry-type transformer
- Superior replacement for epoxy-bonded mica in layer insulation
- High temperature NEMA GPO-1 products

Technical Information

Material: Fibreglass reinforced polyester resin

Colour: Cream / Tan

Sizing and Machining

Standard Sheet Size: 1,200 mm x 2,440mm

Nominal Thickness: 0.8mm to 50.0mm

Profiles: Dogbone

We provide a full machining and fabrication service, delivering everything from cut-to-order sheets to complex fully-finished components. Available for short-run or volume-based orders.



Insulect Australia | Customer Service

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The information in this document is believed to be correct at the time of publication. The user is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of use or application. No reliance may be placed on any such information or data without first contacting Insulect Australia to clarify individual user requirements.

Technical Information

Technical Data	Units	ASTM/UL Number	Value	
Mechanical				
NEMA Grade Li 1-1989	-	-	GPO-1	
Tensile Strength	Psi	D638	12,500	
Tensile Modulus	Psi X 10 ⁶	D638	1.7	
Flexural Strength	Psi	D790	29,000	
Compressive Strength	Psi	D695	36,000	
Shear Strength	Psi	D732	11,100	
IZOD Impact Strength (notched)	ft. lb./in.	D256	12	
Water Absorption	% by wt.	D570	0.3	
Specific Gravity	-	D792	1.7	
Electrical				
Electrical Strength - Perpendicular S/T in Air	Vpm	D149	500	
Electrical Strength - Perpendicular S/T in Oil	Vpm	D149	625	
Electrical Strength - Parallel S/S in Oil	kV	D149	50	
Arc Resistance	Sec.	D495	120/180*	
IEC Track Resistance (CTI)	V.	UL746A	>600	
UL High Voltage Track Rate	In./Min.	UL746A	0	
Permittivity, 60 Hz	-	D150	4.6	
Dissipation Factor, 60 Hz	-	D150	0.37	
Permittivity, MHz	-	D150	3.7	
Dissipation Factor, MHz	-	D150	0.013	
Insulation Resistance	Ohm x 10 ¹²	D257	145	
Flammability				
UL Subject 94	-	UL94	HB	
UL Hot Wire Ignition	Sec.	UL746A	0.028 in./35 0.058 in./39	
UL High Amp Ignition	# Exposure	UL746A	200+	
Oxygen Index	%O ₂	D2863	21.8	
Thermal				
Coefficient of Thermal Expansion	In/In/°C x 10 ⁻⁵	D696	2	
Thermal Conductivity	BTU/HR/Ft ² /In/°F	C177	1.7	
UL Temperature Index	Electrical	°C	UL746B	210
	Mechanical	°C	UL746B	210
UL Recognition File Number	-	-	E81928	

Typical average values for testing 0.063" thick material. Values will vary somewhat from thickness to thickness within a material grade. *Post Cured



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