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POLYESTER / FIBERGLASS

GPO-1

Description

GPO-1 is a is a high temperature polyester laminate that exhibits excellent retention of electrical and mechanical properties at elevated temperatures. UL, Inc. has granted GPO-1 the highest thermal recognition ever achieved by any glass polyester laminate (U.L. File No. E81893).

Applications

The GPO-1 is designed for use in high voltage transformers, D.C. motors and elsewhere when materials with high thermal indices are required.

Specifications

Electrical Data	
Dielectric strength, Perpendicular, Short Time In Oil 1/16" VPM (ASTM D-149)	400
Dielectric Strenght, Parallel, Step-By-Step In Oil, KV (ASTM D149)	62.0
Arc Resistance, Seconds (ASTM D-495)	150
Dielectric constant @ 60Hz (ASTM D-150)	4.20
Dissipation factor @ 60Hz (ASTM D-150)	0.01

N.B. The information presented may differ from practice. We recommend conducting tests according to the conditions of use. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products. The data is subject to certain variations without notice.

Mechanical Data	
Tensile Strength, psi (ASTM D-638)	13 000

Flexural Strenght, psi (ASTM D-790)	25 000
Modulus of Elasticity in Flexure, psi (ASTM D-790)	1.70 x 10^6
Compressive Strenght, psi (ASTM D-695)	33 000
Bond Strength, Thickness 1/2", psi (ASTM D-229)	1 400
Shear Strength, psi (ASTM D-732)	14000
Impact Strength, Izod Edgewise, Ft lbs/ln Notch (ASTM D-256)	10.1

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Physical Data	
Color	Tan
Barcol Hardness, Scale	52
Specific gravity (ASTM D-792)	1.62
Density, Lbs/ln^3	0.050
Water absorption % (ASTM D-229)	0.30
UL Flammability, Class (UL94)	HB
Flame Resistance Ignition Time, Seconds (ASTM D-229)	77
Flame Resistance Burning Time, Seconds (ASTM D-229)	256
Coeffecient of Thermal Expansion, ln/ln/°C (ASTM D-696)	2.9 x 10^-5
Operating Temperature, °C	210

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