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GPO-1

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GPO-1 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

Physical Data

Color	Tan
Barcol Hardness, Scale	52
Specific gravity (ASTM D-792)	1.62
Density, Lbs/In³	0.050
Water absorption % (ASTM D-229)	0.30
UL Flammability, Class (UL94)	HB
Flame Resistance	
Ignition Time, Seconds (ASTM D-229)	77
Burning Time, Seconds (ASTM D-229)	256
Coefficient of Thermal Expansion, In/In/°C (ASTM D-696)	2.9 x 10⁻⁵
Operating Temperature, °C	210

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 10⁶
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/In Notch (ASTM D-256)	10.1

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.