

# TECHNICAL DATA SHEET

## GPO-3 (Glass Polymer Laminate)

GPO is constructed with fiberglass-reinforced thermoset polyesters which feature a combination of beneficial electrical and mechanical properties. These attributes include

Dielectric strength, flame resistance, arc and track resistance, high-flex strength and high-impact strength. They maintain stability, will not melt under heat and have excellent overall electrical properties. All grades are UL® recognized.

### Characteristics

**GPO-3** is the laminate to choose when arc, flame and carbon track-resistance are needed. GPO-3 offers good physical strength and moderate heat resistance. It is used extensively in the making of electrical components.

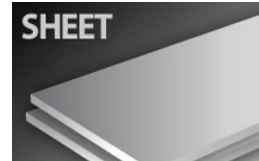
#### Benefits

- Electrical insulation
- Track resistance
- Self extinguishing UL94 (V-0)
- Chemical resistance
- Low smoke
- Low conductivity
- Impact and Abrasion resistant
- Good mechanical strength

#### Applications

- Phase and end barriers
- Insulating and bus bar supports
- Mounting panels in switchgear and other types of electrical apparatus
- Transformers
- Antenna bases
- Spacers

#### SHAPE AVAILABLE



### TYPICAL PROPERTIES of GPO-3

Density

#### MECHANICAL PROPERTIES

Tensile Strength @ yield

Tensile Modulus

Tensile Elongation @Break

Flexural Strength

Flexural Modulus

Compressive Strength

IZOD Impact Strength Notched

#### THERMAL PROPERTIES

Coefficient of Linear Thermal Expansion

Heat Deflection Temp at 264 psi

#### ELECTRICAL PROPERTIES

Surface Resistivity @60 Hz

Volume Resistivity, 50% RH

#### OPTICAL PROPERTIES

3mm Transparent Clear Transmittance. Total (%)

	UNITS	ASTM	RESULTS
Tensile Strength @ yield	psi	D638	10000
Tensile Modulus	MPa	D638	427000
Tensile Elongation @Break	%	D638	4.5
Flexural Strength	MPa		16000
Flexural Modulus	psi		450000
Compressive Strength	psi	D695	17900
IZOD Impact Strength Notched	kJ.m <sup>2</sup>	D256	0.375
Coefficient of Linear Thermal Expansion	x10 <sup>-5</sup> /K	C177	0.000042
Heat Deflection Temp at 264 psi	°F		200
Surface Resistivity @60 Hz	ohms/sq	D257	
Volume Resistivity, 50% RH	ohm-cm	D250	
3mm Transparent Clear Transmittance. Total (%)	%	D1003	
	%	D542	1.43

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.