

GPO Materials Specs

| | | | Lamcor Grade GP-9105 | Lamcor Grade GP-9206 | Lamcor Grade GP-9306 | Lamcor Grade CP- 200 HT | | |
|---|---|---|---|---|---|--|-------|------|
| | Units | ASTM Test Method | Polyester - Glass Laminate (GPO-1) | FR Polyester Glass Laminate (GPO-2) | FR Polyester Glass Laminate (GPO-3) | High Temperatur e Polyester Glass Laminate | | |
| MECHANICAL | Strength to Weight Ratio | ksi | - | - | - | - | | |
| | Specific Gravity @73 F | - | D792 | 1.95 | 1.80 | 1.80 | 1.77 | |
| | Tensile Strength @73 F _i (ult)/yld | psi | D638 | 9000 | 9000 | 9000 | 15000 | |
| | Tensile Modulus of Elasticity @ 73 F | psi | D638 | - | - | - | - | |
| | Tensile Elongation at Break @ 73 F | % | D638 | - | - | - | - | |
| | Flexural Strength @ 73 F | psi | D790 | 21000 | 21000 | 21500 | 28000 | |
| | Flexural Modulus of Elasticity @ 73 F | psi | D790 | - | - | - | - | |
| | Shear Strength @ 73 F | psi | D732 | - | - | - | - | |
| | Compressive Strength, (% Deformation) @73 F | psi | D695 | 30000 | 30000 | 33000 | 28000 | |
| | Compressive Modulus of Elasticity @73 F | psi | D695 | - | - | - | - | |
| | Hardness, Rockwell, Scale as noted @73 F | - | D785 | M-112 | M-105 | M-105 | M101 | |
| | Hardness, Durometer, Shore D @73 F | - | D2240 | - | - | - | - | |
| | Izod Impact, (Notched) @73 F | ft-lb/in of notch | D256 TypeA | - | 8.2 | 8.3 | 14 | |
| | Coefficient of Friction, (Dry vs. Steel) Dynamic | - | - | - | - | - | - | |
| | Limiting PV, (with 4 to 1 factor of safety applied) | psi-ft./min | - | - | - | - | - | |
| | THERMAL | Coefficient of Linear Thermal Expansion @73 F | in./in./F | E-831 (TMA) | - | - | - | - |
| | | Heat Deflection Temperature @ 264 psi | F | D648 | - | - | - | - |
| Tg-Glass transition temperature, (Amorphous) | | F | D3418 | - | - | - | - | |
| Melting Point, (VS-Vicat Softening Temp.) | | F | D3418 | - | - | - | - | |
| Continuous Service Temperature in Air, (Max.) | | F | - | 266 | 311 | 284 | 392 | |
| Thermal Conductivity | | BTU-in/hr-ft ² -F | - | - | - | - | - | |
| Dielectric Strength, Short Term | | Volts/mil | D149 | 400 | 400 | 400 | 380 | |
| Volume Resistivity | | ohm-cm | D257 | - | - | - | - | |
| Dielectric Constant @ 10E6 Hz | | - | D150 | 4.5 | 4.95 | 4.1 | 4.10 | |
| Dissipation Factor @ 10E6 Hz | | - | D150 | .01 | .02 | .027 | 0.07 | |
| ELECTRICAL | Flammability @ 3.1 mm unless noted | - | UL94 | - | V-0 | V-0 | - | |
| | H ₂ O | Water Absorbion, Immersion, 24 Hrs | % by wt. | D570(7) | - | .13 | 0.12 | 0.25 |
| | | Water Absorbion, Saturation | % by wt. | D570(7) | - | - | - | - |