

TECHNICAL DATA AND PROCESS SHEET

10% GLASS FIBER REINFORCED POLYETHERSULFONE

INSTRUC PESGF10

TYPICAL PROPERTIES

| PROPERTY | ASTM METHOD | English | UNITS | Metric SI | UNITS |
|--|--------------------|-------------------|-----------------------------|-------------------|--------------------------|
| GENERAL | | | | | |
| SPECIFIC GRAVITY | D792 | 1.44 | | 1.44 | |
| SPECIFIC VOLUME | | 19.2 | in ³ /lb | 0.694 | cm ³ /gm |
| WATER ABSORPTION (24 Hrs) | D570 | 0.4 | % | 0.40 | % |
| MOLD SHRINKAGE | D955 | 0.4-0.5 | % | 0.4-0.5 | % |
| MECHANICAL | | | | | |
| TENSILE STRENGTH | D638 | 14,000 | psi | 97 | MPa |
| ELONGATION, YIELD | D638 | 3-5 | % | 3-5 | % |
| FLEXURAL STRENGTH | D790 | 22,000 | psi | 152 | MPa |
| FLEXURAL MODULUS | D790 | 600,000 | psi | 4,137 | MPa |
| SHEAR STRENGTH | D732 | | | | |
| IZOD IMPACT STRENGTH | D256 | | | | |
| NOTCHED 1/8" | | 0.8 | ft.lb./in. | 43 | J/m |
| UNNOTCHED 1/8" | | 8 | ft.lb./in. | 426 | J/m |
| ROCKWELL HARDNESS | | | | | |
| THERMAL | | | | | |
| HDTUL @ 264 PSI | D648 | 410 | °F | 210 | °C |
| COEFFICIENT OF LINEAR THERMAL EXPANSION | D696 | 1.8 | in./in. F x10 ⁻⁵ | 3.24 | mm/mm C 10 ⁻⁶ |
| FLAMMABILITY ¹ | U.L.Subj 94 | V0@1/16 | in | V0@ 1.5 | mm |
| ELECTRICAL | | | | | |
| SURFACE RESISTIVITY | | 10e ¹⁶ | ohms/sq | 10e ¹⁶ | ohms/sq |
| PROCESSING | | | | | |
| DRYING TEMPERATURE | | 300 | °F | 149 | °C |
| DRYING TIME | | 4 | hrs | 4 | hrs |
| MELT TEMPERATURE | | 650-715 | °F | 343 - 380 | °C |
| MOLD TEMPERATURE | | 300 | °F | 149 | °C |
| BACK PRESSURE | | 50-100 | psi | 0.3 - 0.7 | MPa |
| SCREW SPEED | | 40-70 | rpm | 40-70 | rpm |
| VENT DEPTH | | 0.0015-0.003 | in | 0.038 - 0.075 | mm |

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