

TECHNICAL DATA AND PROCESS SHEET

10% CARBON FIBER REINFORCED POLYCARBONATE

INELEC PCCF10

TYPICAL PROPERTIES

| PROPERTY | ASTM METHOD | English | UNITS | Metric SI | UNITS |
|--|--------------------|----------------|-----------------------------|------------------|--------------------------|
| GENERAL | | | | | |
| SPECIFIC GRAVITY | D792 | 1.24 | | 1.24 | |
| SPECIFIC VOLUME | | 22.34 | in ³ /lb | 0.806 | cm ³ /gm |
| WATER ABSORPTION (24 Hrs) | D570 | 0.1 | % | 0.10 | % |
| MOLD SHRINKAGE | D955 | 0.2-0.3 | % | 0.2-0.3 | % |
| MECHANICAL | | | | | |
| TENSILE STRENGTH | D638 | 16,000 | psi | 110 | MPa |
| ELONGATION, YIELD | D638 | 3-4 | % | 3-4 | % |
| FLEXURAL STRENGTH | D790 | 22,000 | psi | 152 | MPa |
| FLEXURAL MODULUS | D790 | 870,000 | psi | 5,998 | MPa |
| SHEAR STRENGTH | D732 | | | | |
| IZOD IMPACT STRENGTH | D256 | | | | |
| NOTCHED 1/8" | | 1.6 | ft.lb./in. | 85 | J/m |
| UNNOTCHED 1/8" | | 11 | ft.lb./in. | 586 | J/m |
| ROCKWELL HARDNESS | | | | | |
| THERMAL | | | | | |
| HDTUL @ 264 PSI | D648 | 280 | °F | 138 | °C |
| COEFFICIENT OF LINEAR THERMAL EXPANSION | D696 | 1.4 | in./in. F x10 ⁻⁵ | 2.52 | mm/mm C 10 ⁻⁶ |
| FLAMMABILITY ¹ | U.L.Subj 94 | HB@1/16 | in | HB@ 1.5 | mm |
| ELECTRICAL | | | | | |
| SURFACE RESISTIVITY | | 10e2 -10e6 | ohms/sq | 10e2 -10e6 | ohms/sq |
| PROCESSING | | | | | |
| DRYING TEMPERATURE | | 250 | °F | 121 | °C |
| DRYING TIME | | 4 | hrs | 4 | hrs |
| MELT TEMPERATURE | | 540-630 | °F | 280- 330 | °C |
| MOLD TEMPERATURE | | 200 | °F | 93 | °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 |

This information is based on our experience to date and we believe it to be reliable. It is intended only as a guide for use at your discretion and risk. We cannot guarantee favorable results and assume no liability in connection with its use of the products described. Each user bears full responsibility for making it's own determination as to the suitability of the product described. None of this information is to be taken as a license to operate under, or recommendation to infringe any patents.