



2079 Center Square Road
 Logan Township, NJ 08085
 Phone: 856-467-3030

TECHNICAL DATA AND PROCESS SHEET

30% CARBON FIBER REINFORCED PBT

INELEC PBTCF30

TYPICAL PROPERTIES

| PROPERTY | ASTM METHOD | English | UNITS | Metric SI | UNITS |
|--|--------------------|----------------|-----------------------------|------------------|--------------------------|
| GENERAL | | | | | |
| SPECIFIC GRAVITY | D792 | 1.41 | | 1.41 | |
| SPECIFIC VOLUME | | 19.65 | in ³ /lb | 0.709 | cm ³ /gm |
| WATER ABSORPTION (24 Hrs) | D570 | 0.05 | % | 0.05 | % |
| MOLD SHRINKAGE | D955 | 0.1-0.2 | % | 0.1-0.2 | % |
| MECHANICAL | | | | | |
| TENSILE STRENGTH | D638 | 21,000 | psi | 145 | MPa |
| ELONGATION, YIELD | D638 | 1-3 | % | 1-3 | % |
| FLEXURAL STRENGTH | D790 | 29,500 | psi | 203 | MPa |
| FLEXURAL MODULUS | D790 | 2,300,000 | psi | 15,858 | MPa |
| SHEAR STRENGTH | D732 | 8,000 | psi | 55 | MPa |
| IZOD IMPACT STRENGTH | D256 | | | | |
| NOTCHED 1/8" | | 1.1 | ft.lb./in. | 59 | J/m |
| UNNOTCHED 1/8" | | 10 | ft.lb./in. | 533 | J/m |
| ROCKWELL HARDNESS | | | | | |
| THERMAL | | | | | |
| HDTUL @ 264 PSI | D648 | 425 | °F | 218 | °C |
| COEFFICIENT OF LINEAR THERMAL EXPANSION | D696 | 0.4 | in./in. F x10 ⁻⁵ | 0.72 | 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 | | 230 | °F | 110 | °C |
| DRYING TIME | | 4 | hrs | 4 | hrs |
| MELT TEMPERATURE | | 430-500 | °F | 220- 260 | °C |
| MOLD TEMPERATURE | | 225 | °F | 107 | °C |
| BACK PRESSURE | | 50-100 | psi | 0.3 - 0.7 | MPa |
| SCREW SPEED | | 40-70 | rpm | 40-70 | rpm |
| VENT DEPTH | | 0.0005-0.001 | in | 0.0125 - 0.025 | mm |

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