

TECHNICAL DATA AND PROCESS SHEET

20% CARBON FIBER REINFORCED NYLON 12

INSTRUC PA12CF20

TYPICAL PROPERTIES

| PROPERTY | VALUE | UNIT | METHOD |
|-----------------------------|--------------|-------------|---------------|
| PHYSICAL | | | |
| SPECIFIC GRAVITY | 1.10 | - | ASTM D792 |
| WATER ABSORPTION | 0.08 | % | ASTM D570 |
| MOLD SHRINKAGE, FLOW 0.125" | 0.1 – 0.3 | % | |
| MECHANICAL | | | |
| TENSILE STRENGTH, BRK | 16,300 | psi | ASTM D638 |
| TENSILE ELONGATION | 2-3 | % | ASTM D638 |
| FLEXURAL MODULUS | 1,250,000 | psi | ASTM D790 |
| IZOD IMPACT, NOTCHED | 1.5 | ft-lb/in | ASTM D256 |
| IZOD IMPACT, UNNOTCHED | 10-12 | ft-lb/in | ASTM D256 |
| THERMAL | | | |
| HDTUL @ 264 PSI | 325 | °F | ASTM D648 |
| ELECTRICAL | | | |
| SURFACE RESISTIVITY | >10EXP17 | Ohm/Sq | ASTM D257 |
| PROCESSING | | | |
| DRYING TEMPERATURE | 180 | °F | |
| DRYING TIME | 4 | hrs | |
| MELT TEMPERATURE | 440-460 | °F | |
| MOLD TEMPERATURE | 160-180 | °F | |
| BACK PRESSURE | 50-100 | psi | |
| SCREW SPEED | 40-70 | rpm | |
| VENT DEPTH | 0.0005-0.001 | in | |

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