



Edgetek™ PC-20GF/000

Polycarbonate

Key Characteristics

| General | | | |
|------------------------|--|-----------------------------|-----------------|
| Material Status | • Commercial: Active | | |
| Regional Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Filler / Reinforcement | • Glass Fiber | | |
| Forms | • Pellets | | |

Technical Properties ¹

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|---|----------------------------------|--------------------|-------------|
| Density / Specific Gravity | 1.34 | 1.34 | ASTM D792 |
| Molding Shrinkage - Flow | 1.0E-3 to 4.0E-3 in/in | 0.10 to 0.40 % | ASTM D955 |
| Water Absorption (24 hr) | 0.15 % | 0.15 % | ASTM D570 |
| Mechanical | Typical Value (English) | Typical Value (SI) | Test Method |
| Tensile Modulus ² | 1.00E+6 psi | 6890 MPa | ASTM D638 |
| Tensile Strength ² (Break) | 15500 psi | 107 MPa | ASTM D638 |
| Tensile Elongation ² (Break) | 5.0 % | 5.0 % | ASTM D638 |
| Flexural Modulus | 800000 psi | 5520 MPa | ASTM D790 |
| Flexural Strength | 19000 psi | 131 MPa | ASTM D790 |
| Compressive Strength | 20500 psi | 141 MPa | ASTM D695 |
| Shear Strength | 8500 psi | 58.6 MPa | ASTM D732 |
| Impact | Typical Value (English) | Typical Value (SI) | Test Method |
| Notched Izod Impact 73°F (23°C), 0.250 in (6.35 mm), Injection Molded | 2.5 ft·lb/in | 130 J/m | ASTM D256A |
| Hardness | Typical Value (English) | Typical Value (SI) | Test Method |
| Rockwell Hardness (M-Scale) | 85 | 85 | ASTM D785 |
| Thermal | Typical Value (English) | Typical Value (SI) | Test Method |
| Deflection Temperature Under Load 66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm) | 300 °F | 149 °C | ASTM D648 |
| Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm) | 290 °F | 143 °C | ASTM D648 |
| CLTE - Flow | 1.6E-5 in/in/°F | 2.9E-5 cm/cm/°C | ASTM D696 |
| Thermal Conductivity | 2.4 Btu·in/hr/ft ² °F | 0.34 W/m/K | ASTM C177 |
| Electrical | Typical Value (English) | Typical Value (SI) | Test Method |
| Volume Resistivity | 6.0E+15 ohms·cm | 6.0E+15 ohms·cm | ASTM D257 |
| Flammability | Typical Value (English) | Typical Value (SI) | Test Method |
| Flame Rating | V-1 | V-1 | UL 94 |

Processing Information

| Injection | Typical Value (English) | Typical Value (SI) |
|--------------------|-------------------------|--------------------|
| Drying Temperature | 250 °F | 121 °C |
| Drying Time | 2.0 hr | 2.0 hr |

| Injection | Typical Value (English) | Typical Value (SI) |
|------------------------|-------------------------|--------------------|
| Processing (Melt) Temp | 550 to 600 °F | 288 to 316 °C |
| Mold Temperature | 180 to 250 °F | 82 to 121 °C |

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 0.20 in/min (5.1 mm/min)



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