

AuroraTec™ 3GF20IM

Aurora Material Solutions, LLC - Polycarbonate + PBT

General Information
Product Description

Impact Modified 20% Glass Fiber Reinforced PC/PBT

Formerly known as EnCounter 3GF20IM

General

| | | | |
|------------------------|-------------------------------------|--------------------------------------|-----------------|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East | • Europe | • North America |
| | • Asia Pacific | • Latin America | |
| Filler / Reinforcement | • Glass Fiber, 20% Filler by Weight | | |
| Additive | • Impact Modifier | | |
| Features | • Impact Modified | | |
| Uses | • Automotive Applications | • Electrical/Electronic Applications | |
| Appearance | • Black | • Colors Available | • Natural Color |
| Processing Method | • Injection Molding | • Profile Extrusion | |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|----------|-------------|
| Density / Specific Gravity | 1.35 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (260°C/5.0 kg) | 10 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (0.126 in) | 4.0E-3 | in/in | ASTM D955 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength (Yield) | 12000 | psi | ASTM D638 |
| Tensile Elongation (Break) | > 5.0 | % | ASTM D638 |
| Flexural Modulus | 550000 | psi | ASTM D790 |
| Flexural Strength | 15000 | psi | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (73°F) | 2.0 | ft-lb/in | ASTM D256 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed) | 315 | °F | ASTM D648 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|------------------|------|
| Drying Temperature | 230 | °F |
| Drying Time | 4.0 to 6.0 | hr |
| Suggested Max Moisture | 0.020 | % |
| Rear Temperature | 470 to 510 | °F |
| Middle Temperature | 480 to 520 | °F |
| Front Temperature | 490 to 530 | °F |
| Nozzle Temperature | 490 to 520 | °F |
| Processing (Melt) Temp | 500 to 530 | °F |
| Mold Temperature | 150 to 190 | °F |
| Back Pressure | 50.0 to 100 | psi |
| Screw Speed | 50 to 80 | rpm |
| Vent Depth | 5.0E-3 to 8.0E-3 | in |

Injection Notes

Maximum Drying Time 8.0 hrs

