

Technical Data Sheet

Schuladur HT GF 30 FR 5 BLK 968001



Polycyclohexylenedimethylene Terephthalate

Product Description

30% glass fiber reinforced, flame retardant PCT

Processing Method Injection Molding

Filler/Reinforcement Glass Fiber, 30%

Resin ID PCT GF30 FR(16)

| Typical Properties | Nominal Value | Units | Test Method |
|--|---------------|-------------------------|---------------|
| Physical | | | |
| Melt Volume Flow Rate, (300 °C/2.16 kg) | 25 | cm ³ /10 min | ISO 1133 |
| Density, (Method A) | 1.72 | g/cm ³ | ISO 1183 |
| Mechanical | | | |
| Tensile Strain at Break, (Type 1A, 5 mm/min) | 1.2 | % | ISO 527-2 |
| Flexural Modulus, (2.0 mm/min) | 7750 | MPa | ISO 178 |
| Tensile Stress at Break, (Type 1A, 5 mm/min) | 100 | MPa | ISO 527-2 |
| Tensile Modulus, (1 mm/min, Type 1A) | 11900 | MPa | ISO 527-1 |
| Flexural Stress, (2.0 mm/min, 1.6%) | 142 | MPa | ISO 178 |
| Impact | | | |
| Charpy Impact Strength - Notched, (23 °C, Type 1, Edgewise, Notch A) | 5.0 | kJ/m ² | ISO 179 |
| Charpy Impact Strength - Unnotched, (23 °C, Type 1, Edgewise) | 20 | kJ/m ² | ISO 179 |
| Thermal | | | |
| Vicat Softening Temperature | | | |
| (B (50N), 50 °C/h) | 215 | °C | ISO 306 |
| (A (10N), 50 °C/h) | >250 | °C | ISO 306 |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | >250 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 240 | °C | ISO 75-2/A |
| Electrical | | | |
| Volume Resistivity | >1.0E+13 | ohm*m | IEC 62631-3-1 |
| Comparative Tracking Index (CTI) | 250 | V | IEC 60112 |
| Surface Resistivity | >1.0E+15 | ohm | IEC 60093 |
| Flammable | | | |
| Burning Rate | | | |
| (2.00 mm, Self-Extinguishing) | 0.0 | mm/min | ISO 3795 |
| (2.00 mm, Self-Extinguishing) | 0.0 | mm/min | FMVSS 302 |

| Glow Wire Flammability Index | | | |
|--------------------------------|-----|----|----------------|
| (0.75 mm) | 960 | °C | IEC 60695-2-12 |
| (1.5 mm) | 960 | °C | IEC 60695-2-12 |
| (3.0 mm) | 960 | °C | IEC 60695-2-12 |
| Glow Wire Ignition Temperature | | | |
| (0.75 mm) | 875 | °C | IEC 60695-2-13 |
| (1.5 mm) | 875 | °C | IEC 60695-2-13 |
| (3.0 mm) | 875 | °C | IEC 60695-2-13 |

UL Information

| Flammability Classification | | | |
|-----------------------------|-----|--|----------------------|
| (0.8 mm) | V-0 | | IEC 60695-11-10, -20 |
| (1.6 mm) | V-0 | | IEC 60695-11-10, -20 |
| (3.2 mm) | V-0 | | IEC 60695-11-10, -20 |

| Injection Parameters | Nominal Value | Units |
|------------------------|---------------|--------|
| Drying Time | 4.0 to 6.0 | hr |
| Drying Temperature | 100 | °C |
| Suggested Max Moisture | 0.03 | % |
| Screw Speed | <250 | mm/sec |
| Processing (Melt) Temp | 290 to 310 | °C |
| Injection Rate | Slow-Moderate | |
| Back Pressure | 2.00 to 8.00 | MPa |
| Mold Temperature | 90 to 120 | °C |