

Technical Data Sheet

Polyfort FPP 40 GFC SHI BLK

Polypropylene, Homopolymer

Product Description

40% glass fiber reinforced high impact PP-Homopolymer, chemically coupled

| | |
|-----------------------------|-------------------|
| Processing Method | Injection Molding |
| Filler/Reinforcement | Glass Fiber, 40% |
| Resin ID | PP-H 40GFC HI |

| Typical Properties | Nominal Value | Units | Test Method |
|--|---------------|-------------------------|-------------|
| Physical | | | |
| Melt Volume Flow Rate | | | |
| (230 °C/2.16 kg) | 2.0 | cm ³ /10 min | ISO 1133 |
| (230 °C/5.0 kg) | 7.0 | cm ³ /10 min | ISO 1133 |
| Density, (Method A) | 1.22 | g/cm ³ | ISO 1183 |
| Mechanical | | | |
| Tensile Strain at Break, (Type 1A, 5 mm/min) | 5.5 | % | ISO 527-2 |
| Flexural Modulus, (2.0 mm/min) | 6600 | MPa | ISO 178 |
| Tensile Stress at Break, (Type 1A, 5 mm/min) | 80.0 | MPa | ISO 527-2 |
| Tensile Modulus, (1 mm/min, Type 1A) | 7700 | MPa | ISO 527-1 |
| Flexural Stress | | | |
| (2.0 mm/min, 3.5%) | 120 | MPa | ISO 178 |
| (2.0 mm/min, 5.5%) | 112 | MPa | ISO 178 |
| (2.0 mm/min, 4.5%) | 120 | MPa | ISO 178 |
| Impact | | | |
| Charpy Impact Strength - Notched | | | |
| (23 °C, Type 1, Edgewise, Notch A) | 18 | kJ/m ² | ISO 179 |
| (-30 °C, Type 1, Edgewise, Notch A) | 8.0 | kJ/m ² | ISO 179 |
| Charpy Impact Strength - Unnotched | | | |
| (23 °C, Type 1, Edgewise) | 60 | kJ/m ² | ISO 179 |
| (-30 °C, Type 1, Edgewise) | 55 | kJ/m ² | ISO 179 |
| Hardness | | | |
| Ball Indentation Hardness, (H 358/30) | 120 | MPa | ISO 2039-1 |
| Thermal | | | |
| Vicat Softening Temperature | | | |
| (B (50N), 50 °C/h) | 120 | °C | ISO 306 |
| (A (10N), 50 °C/h) | 163 | °C | ISO 306 |

| | | | |
|---|------------|--------|----------------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 154 | °C | ISO 75-2/B |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 147 | °C | ISO 75-2/A |
| Electrical | | | |
| Volume Resistivity | 1000000000 | ohm*m | IEC 62631-3-1 |
| Surface Resistivity | 1E+15 | ohm | IEC 60093 |
| Flammable | | | |
| Burning Rate | | | |
| (2.00 mm) | <100 | mm/min | FMVSS 302 |
| (2.00 mm) | <100 | mm/min | ISO 3795 |
| UL Information | | | |
| Flammability Classification | | | |
| (1.5 mm) | HB | | IEC 60695-11-10, -20 |
| (3.0 mm) | HB | | IEC 60695-11-10, -20 |

| Injection Parameters | Nominal Value | Units |
|-----------------------------|----------------------|--------------|
| Drying Time | 2.0 to 3.0 | hr |
| Drying Temperature | 80 | °C |
| Processing (Melt) Temp | 220 to 260 | °C |
| Injection Rate | Moderate-Fast | |
| Mold Temperature | 30 to 60 | °C |