HK:+852-69575415 China GuangDong:+13538586433 ShangHai:+18816996168

Technical Data Sheet

POLYFORT® FPP 40 GFC HI

Polypropylene Homopolymer
Engineering Plastics

Product Description
High impact 40 % glass fibre reinforced PP-Homopolymer, chemically coupled

General			
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight		
Features	• Chemically Coupled	• Homopolymer	• Impact Modified
Automotive Specifications	• GM QK 003826 Color: Black		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.23 g/cm³	1.23 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	3.00 cm³/10min	3.00 cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.1 %	1.1 %	
Flow	0.20 %	0.20 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	1.13E+6 psi	7800 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	12200 psi	84.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	4.3 %	4.3 %	ISO 527-2/1A/5
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	3.3 ft·lb/in²	7.0 kJ/m²	
73°F (23°C)	5.7 ft·lb/in²	12 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	24 ft·lb/in²	51 kJ/m²	
73°F (23°C)	27 ft·lb/in²	57 kJ/m²	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Ball Indentation Hardness (H 358/30)	17400 psi	120 MPa	ISO 2039-1
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	316 °F	158 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	286 °F	141 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	327 °F	164 °C	ISO 306/A50
--	268 °F	131 °C	ISO 306/B50
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+13 ohms·m	> 1.0E+13 ohms·m	IEC 62631-3-1
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Burning Rate			
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	ISO 3795
0.0787 in (2.00 mm)	< 3.9 in/min	< 100 mm/min	FMVSS 302
Flammability Classification			IEC 60695-11-10, -20
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

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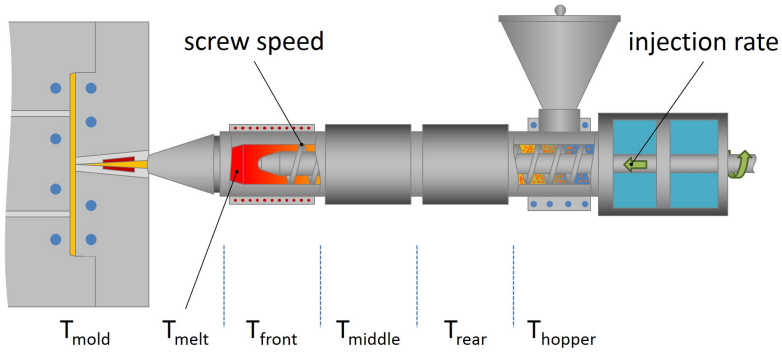

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	104 to 158 °F	40 to 70 °C

Injection Notes

Drying normally not necessary.

Injection molding parameters also influence emission properties, which are often required for automotive interior applications. Generally speaking, the emission, odor and fogging behavior of finished parts is improved by lowering the melt temperature, reducing residence time and avoiding high shear stress.

Notes

These are typical property values not to be construed as specification limits.