Technical Data Sheet

POLYFORT® FPP 40 GFC

Polypropylene Homopolymer
Engineering Plastics

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

General		
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight	
Features	• Chemically Coupled	• Homopolymer
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PP-GF	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.21 g/cm³	1.21 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	4.00 cm³/10min	4.00 cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.0 %	1.0 %	
Flow	0.20 %	0.20 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	1.17E+6 psi	8100 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	13100 psi	90.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.7 %	2.7 %	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)	2.9 ft·lb/in²	6.0 kJ/m²	
73°F (23°C)	4.8 ft·lb/in²	10 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	19 ft·lb/in²	39 kJ/m²	
73°F (23°C)	21 ft·lb/in²	45 kJ/m²	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Ball Indentation Hardness (H 358/30)	20900 psi	144 MPa	ISO 2039-1
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	318 °F	159 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	297 °F	147 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	329 °F	165 °C	ISO 306/A50
--	273 °F	134 °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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Additional Information

1.) Not for use in food contact applications
2.) Not for use in medical or pharmaceutical applications

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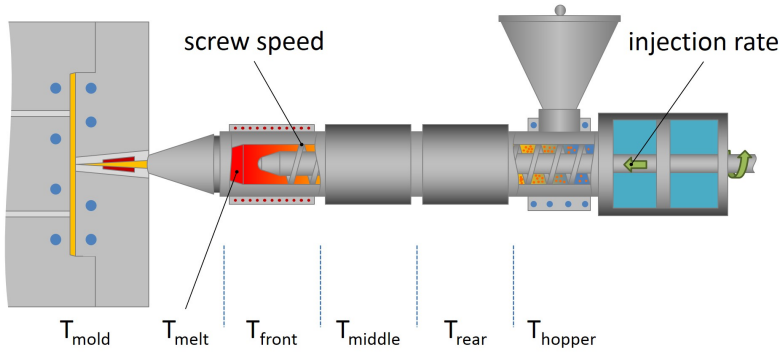

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	104 to 158 °F	40 to 70 °C

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.