Technical Data Sheet

POLYFORT® FPP 20 GFM HI HH

Polypropylene Homopolymer
Engineering Plastics

Product Description
20% milled glass fibre PP homopolymer, impact modified, heat stabilized

General			
Filler / Reinforcement	• Milled Glass Fiber, 20% Filler by Weight		
Additive	• Heat Stabilizer	• Impact Modifier	
Features	• Heat Stabilized	• Homopolymer	• Impact Modified
Automotive Specifications	• FORD WSK-M4D731-A1 Color: Black		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.07 g/cm³	1.07 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	3.50 cm³/10min	3.50 cm³/10min	ISO 1133
Water Absorption			ISO 62
Equilibrium, 73°F (23°C), 50% RH	0.030 %	0.030 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	421000 psi	2900 MPa	ISO 527-2/1A/1
Tensile Stress (Yield)	4500 psi	31.0 MPa	ISO 527-2/1A/50
Tensile Strain			
Yield	6.0 %	6.0 %	ISO 527-2/1A/50
Break	54 %	54 %	ISO 527-2/1A/5
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength (73°F (23°C))	3.3 ft·lb/in²	7.0 kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
73°F (23°C)	14 ft·lb/in²	30 kJ/m²	
Notched Izod Impact (Area) (73°F (23°C))	4.28 ft·lb/in²	9.00 kJ/m²	ASTM D256
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Ball Indentation Hardness (H 358/30)	11700 psi	81.0 MPa	ISO 2039-1
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	250 °F	121 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	158 °F	70.0 °C	ISO 75-2/Af
Vicat Softening Temperature	163 °F	73.0 °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	

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

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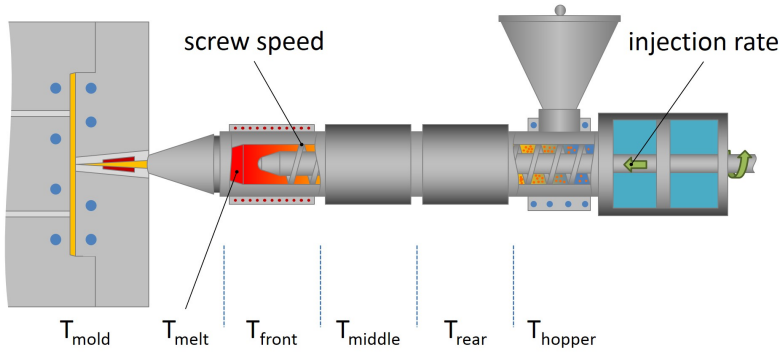

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	104 to 158 °F	40 to 70 °C

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.