Technical Data Sheet

POLYFORT® PPH GBF 4030 RD H3

Polypropylene Homopolymer
Engineering Plastics

Product Description
Glass fibre reinforced PP-Homopolymer, chemically coupled with reduced Density and improved shrinkage. Long-term heat stabilized

General			
Filler / Reinforcement	• Glass Bubble	• Glass Fiber	
Features	• Chemically Coupled	• Heat Stabilized	• Homopolymer
Processing Method	• Injection Molding		
Resin ID (ISO 1043)	• PP-GF		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.00 g/cm³	1.00 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	10 cm³/10min	10 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	943000 psi	6500 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	13100 psi	90.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	3.0 %	3.0 %	ISO 527-2/1A/5
Flexural Modulus	885000 psi	6100 MPa	ISO 178
Flexural Stress	19600 psi	135 MPa	ISO 178
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)	3.8 ft·lb/in²	8.0 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	19 ft·lb/in²	40 kJ/m²	
73°F (23°C)	24 ft·lb/in²	50 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	302 °F	150 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	282 °F	139 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	311 °F	155 °C	ISO 306/A50
--	271 °F	133 °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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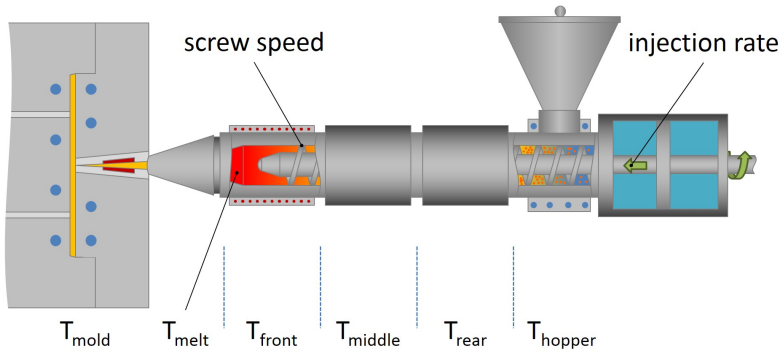

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Suggested Max Regrind	10 %	10 %
Hopper Temperature	158 to 176 °F	70 to 80 °C
Rear Temperature	> 446 °F	> 230 °C
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	104 to 158 °F	40 to 70 °C
Injection Pressure	< 16000 psi	< 110 MPa
Injection Rate	Moderate	Moderate
Back Pressure	< 725 psi	< 5.00 MPa

Injection Notes

1) Drying normally not necessary.
2) Reduced Density (RD) grades are sensitive for shear-stress. Therefore moderate injection- (< 1100 bar) and dosing rates are recommended. In addition for plasticizing a back pressure less than 50 bar is recommended.

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.