Technical Data Sheet

POLYFORT® PPH GF30 H3 LW

Polypropylene Homopolymer
Engineering Plastics

Product Description
30 % glass fibre reinforced PP-Homopolymer, long term heat stabilized, laser weldable black colored

General		
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight	
Features	• Chemically Coupled • Heat Stabilized	• Homopolymer • Laser Weldable
Processing Method	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.13 g/cm³	1.13 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	5.00 cm³/10min	5.00 cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.2 %	1.2 %	
Flow	0.30 %	0.30 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	943000 psi	6500 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	12300 psi	85.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	3.0 %	3.0 %	ISO 527-2/1A/5
Flexural Modulus [1]	870000 psi	6000 MPa	ISO 178
Flexural Stress [1]			ISO 178
3.4% Strain	18600 psi	128 MPa	
3.6% Strain [2]	18300 psi	126 MPa	
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	3.8 ft·lb/in²	8.0 kJ/m²	
73°F (23°C)	4.3 ft·lb/in²	9.0 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	21 ft·lb/in²	45 kJ/m²	
73°F (23°C)	23 ft·lb/in²	48 kJ/m²	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Ball Indentation Hardness (H 358/30)	18600 psi	128 MPa	ISO 2039-1
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	311 °F	155 °C	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	284 °F	140 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	329 °F	165 °C	ISO 306/A50
--	266 °F	130 °C	ISO 306/B50
Ball Pressure Test (293°F (145°C))	Pass	Pass	IEC 60695-10-2
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

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate			
0.0787 in (2.00 mm)	2.3 in/min	58 mm/min	ISO 3795
0.0787 in (2.00 mm)	2.3 in/min	58 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	
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in (1.5 mm)	1380 °F	750 °C	
0.12 in (3.0 mm)	1380 °F	750 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in (1.5 mm)	1430 °F	775 °C	
0.12 in (3.0 mm)	1430 °F	775 °C	

Additional Information

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

Simulaton data (also for Crash simulation) is available on special request

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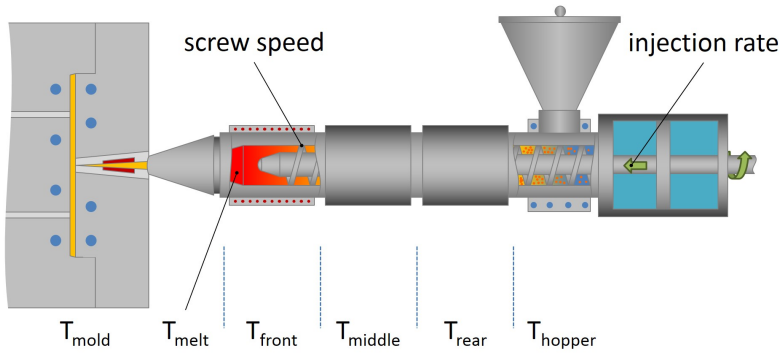

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	104 to 158 °F	40 to 70 °C

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.