

Technical Data Sheet

Polyfort FPP 20 GFC

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics

Product Description

20% chemical coupled glass fiber reinforced PP-Homopolymer

General

Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Chemically Coupled	• Homopolymer	
Automotive Specifications	• GM GMW15702 -024151 PP-GF20	• GM QK 003822 Color: Natural	• PSA Peugeot-Citroën SPA FTM63 0218
UL File Number	• E86615		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 Kg)	5.0 cm ³ /10min	5.0 cm ³ /10min	ISO 1133

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Tensile Modulus	667000 psi	4600 MPa	ISO 527-1/1A/1
Tensile Stress (Break)	9860 psi	68.0 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	3.0 %	3.0 %	ISO 527-2/1A/5

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
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Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	3.3 ft·lb/in ²	7.0 kJ/m ²	
73°F (23°C)	3.8 ft·lb/in ²	8.0 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	12 ft·lb/in ²	25 kJ/m ²	
73°F (23°C)	19 ft·lb/in ²	40 kJ/m ²	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
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Ball Indentation Hardness	14500 psi	100 MPa	ISO 2039-1
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Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
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Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	307 °F	153 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	277 °F	136 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	239 °F	115 °C	ISO 306/B50
--	320 °F	160 °C	ISO 306/A50
Ball Pressure Test (266°F (130°C))	Pass	Pass	IEC 60695-10-2

Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
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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
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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
Processing (Melt) Temp	428 to 500 °F	220 to 260 °C
Mold Temperature	86 to 140 °F	30 to 60 °C
Injection Rate	Moderate-Fast	Moderate-Fast

Injection Notes

Polypropylene is not hygroscopic and generally does not require drying. As a good practice and to avoid residual humidity from transport or storage conditions, we recommend drying the material.

Ensure good mold venting

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.