

Technical Data Sheet

**Polyfort FPP 1151E**

Polypropylene
LyondellBasell Industries
Engineering Plastics

Product Description

Extrusion grade, 40% calcium carbonate filled, high molecular weight polypropylene.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Calcium Carbonate, 40% Filler by Weight
Processing Method	• Extrusion • Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.26	1.26 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.30 to 0.60 g/10 min	0.30 to 0.60 g/10 min	ASTM D1238 ISO 1133
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	0.30 to 0.60 cm ³ /10min	0.30 to 0.60 cm ³ /10min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			
Yield, 73°F (23°C) ¹	3480 psi	24.0 MPa	ASTM D638
Yield, 73°F (23°C)	3630 psi	25.0 MPa	ISO 527-2/50
Flexural Modulus - Tangent			
73°F (23°C) ²	334000 psi	2300 MPa	ASTM D790
73°F (23°C) ³	406000 psi	2800 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179
73°F (23°C), Injection Molded	4.8 ft·lb/in ²	10 kJ/m ²	
Notched Izod Impact			
73°F (23°C), Injection Molded	2.3 ft·lb/in	130 J/m	ASTM D256
73°F (23°C), Injection Molded	4.8 ft·lb/in ²	10 kJ/m ²	ISO 180
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	88	88	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	212 °F	100 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	136 °F	58.0 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	144 °F	62.0 °C	ISO 75-2/A
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
Filler Content	40 %	40 %	ASTM D5630

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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.

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Notes

- ¹ 2.0 in/min (50 mm/min)
² 0.051 in/min (1.3 mm/min)
³ 0.079 in/min (2.0 mm/min)

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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