

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 <sup>3</sup>              | 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<br>ISO 1133 |
| Melt Volume-Flow Rate (MVR) (230°C/2.16 Kg) | 0.30 to 0.60 cm <sup>3</sup> /10min | 0.30 to 0.60 cm <sup>3</sup> /10min | ASTM D1238             |

| Mechanical                      | Nominal Value (English) | Nominal Value (SI) | Test Method  |
|---------------------------------|-------------------------|--------------------|--------------|
| Tensile Strength                |                         |                    |              |
| Yield, 73°F (23°C) <sup>1</sup> | 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) <sup>2</sup>        | 334000 psi              | 2300 MPa           | ASTM D790    |
| 73°F (23°C) <sup>3</sup>        | 406000 psi              | 2800 MPa           | ISO 178      |

| Impact                         | Nominal Value (English)   | Nominal Value (SI)   | Test Method |
|--------------------------------|---------------------------|----------------------|-------------|
| Charpy Notched Impact Strength |                           |                      |             |
| 73°F (23°C), Injection Molded  | 4.8 ft·lb/in <sup>2</sup> | 10 kJ/m <sup>2</sup> | ISO 179     |
| 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 <sup>2</sup> | 10 kJ/m <sup>2</sup> | ISO 180     |

| Hardness                    | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------|-------------------------|--------------------|-------------|
| Rockwell Hardness (R-scale) | 88                      | 88                 | ASTM D785   |

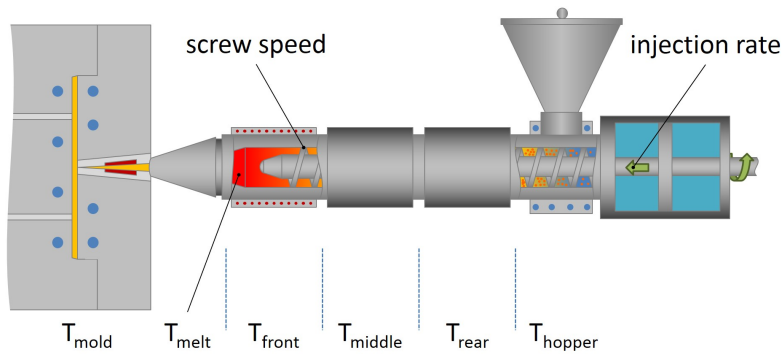
| Thermal                           | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load |                         |                    |             |
| 66 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.

### Notes

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