

## Technical Data Sheet



# Polyfort FPP 30 GFC HI

Polypropylene Homopolymer  
LyondellBasell Industries  
Engineering Plastics

### Product Description

High impact 30% glass fibre reinforced PP-Homopolymer, chemically coupled

### General

|                        |                                          |                             |                   |
|------------------------|------------------------------------------|-----------------------------|-------------------|
| Material Status        | • Commercial: Active                     |                             |                   |
| Availability           | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America   |
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight      |                             |                   |
| Features               | • Chemically Coupled                     | • Homopolymer               | • Impact Modified |
| Processing Method      | • Injection Molding                      |                             |                   |

| Physical                                    | Nominal Value (English)    | Nominal Value (SI)         | Test Method    |
|---------------------------------------------|----------------------------|----------------------------|----------------|
| Density                                     | 1.12 g/cm <sup>3</sup>     | 1.12 g/cm <sup>3</sup>     | ISO 1183/A     |
| Melt Volume-Flow Rate (MVR) (230°C/2.16 kg) | 2.5 cm <sup>3</sup> /10min | 2.5 cm <sup>3</sup> /10min | ISO 1133       |
| Mechanical                                  | Nominal Value (English)    | Nominal Value (SI)         | Test Method    |
| Tensile Modulus                             | 856000 psi                 | 5900 MPa                   | ISO 527-1/1A/1 |
| Tensile Stress (Break)                      | 10900 psi                  | 75.0 MPa                   | ISO 527-2/1A/5 |
| Tensile Strain (Break)                      | 4.5 %                      | 4.5 %                      | ISO 527-2/1A/5 |
| Impact                                      | Nominal Value (English)    | Nominal Value (SI)         | Test Method    |
| Charpy Notched Impact Strength              |                            |                            | ISO 179/1eA    |
| -22°F (-30°C)                               | 5.7 ft·lb/in <sup>2</sup>  | 12 kJ/m <sup>2</sup>       |                |
| 73°F (23°C)                                 | 7.6 ft·lb/in <sup>2</sup>  | 16 kJ/m <sup>2</sup>       |                |
| Charpy Unnotched Impact Strength            |                            |                            | ISO 179/1eU    |
| -22°F (-30°C)                               | 29 ft·lb/in <sup>2</sup>   | 60 kJ/m <sup>2</sup>       |                |
| 73°F (23°C)                                 | 30 ft·lb/in <sup>2</sup>   | 62 kJ/m <sup>2</sup>       |                |
| Hardness                                    | Nominal Value (English)    | Nominal Value (SI)         | Test Method    |
| Ball Indentation Hardness (H 358/30)        | 14800 psi                  | 102 MPa                    | ISO 2039-1     |
| Thermal                                     | Nominal Value (English)    | Nominal Value (SI)         | Test Method    |
| Deflection Temperature Under Load           |                            |                            |                |
| 66 psi (0.45 MPa), Unannealed               | 302 °F                     | 150 °C                     | ISO 75-2/Bf    |
| 264 psi (1.8 MPa), Unannealed               | 248 °F                     | 120 °C                     | ISO 75-2/Af    |
| Vicat Softening Temperature                 |                            |                            |                |
| --                                          | 194 °F                     | 90.0 °C                    | ISO 306/B50    |
| --                                          | 320 °F                     | 160 °C                     | ISO 306/A50    |
| 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      |

### 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 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.

### 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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