

Technical Data Sheet

Polyfort FPP 3790

Polypropylene
LyondellBasell Industries
Engineering Plastics

Product Description

PP compound with 40% talc filler. Long term heat stabilized.

General

| | |
|------------------------|--------------------------------|
| Material Status | • Commercial: Active |
| Availability | • Asia Pacific • North America |
| Filler / Reinforcement | • Talc, 40% Filler by Weight |
| Processing Method | • Injection Molding |

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|---------------------------|---------------------------|-------------|
| Density | 1.25 g/cm ³ | 1.25 g/cm ³ | ISO 1183 |
| Melt Volume-Flow Rate (MVR) (230°C/2.16 Kg) | 11 cm ³ /10min | 11 cm ³ /10min | ISO 1133 |

| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------------|-------------------------|--------------------|-------------|
| Tensile Modulus | 653000 psi | 4500 MPa | ISO 527-1 |
| Tensile Stress (Break) | 3630 psi | 25.0 MPa | ISO 527-2 |
| Tensile Strain (Break) | 3.8 % | 3.8 % | ISO 527-2 |
| Flexural Modulus | 725000 psi | 5000 MPa | ISO 178 |
| Flexural Stress (7.0% Strain) | 2900 psi | 20.0 MPa | ISO 178 |

| Impact | Nominal Value (English) | Nominal Value (SI) | Test Method |
|----------------------------------|----------------------------|-----------------------|-------------|
| Charpy Notched Impact Strength | | | ISO 179 |
| -22°F (-30°C) | 0.81 ft·lb/in ² | 1.7 kJ/m ² | |
| 73°F (23°C) | 1.1 ft·lb/in ² | 2.3 kJ/m ² | |
| Charpy Unnotched Impact Strength | | | ISO 179 |
| -22°F (-30°C) | 4.8 ft·lb/in ² | 10 kJ/m ² | |
| 73°F (23°C) | 7.1 ft·lb/in ² | 15 kJ/m ² | |

| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load | | | |
| 66 Psi (0.45 Mpa), Unannealed | 266 °F | 130 °C | ISO 75-2/B |
| 264 Psi (1.8 Mpa), Unannealed | 165 °F | 74.0 °C | ISO 75-2/A |

| Electrical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---------------------|-------------------------|--------------------|---------------|
| Surface Resistivity | > 1.0E+15 ohms | > 1.0E+15 ohms | IEC 62631-3-2 |
| 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)) | 2.0 in/min | 50 mm/min | ISO 3795 |
| Flammability Classification | | | IEC 60695-11-10, -20 |
| 0.03 In (0.8 Mm) | HB | HB | |
| 0.06 In (1.6 Mm) | HB | HB | |

| 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.