

Technical Data Sheet

Polyfort FPP 3810

Polypropylene
 LyondellBasell Industries
 Engineering Plastics

Product Description

20% calcium carbonate filled, impact copolymer polypropylene

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Calcium Carbonate, 20% Filler by Weight
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Density / Specific Gravity	1.12	1.12 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 Kg)	22 g/10 min	22 g/10 min	ASTM D1238

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
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Tensile Strength ¹ (Yield)	2760 psi	19.0 MPa	ASTM D638
Tensile Elongation (Break)	200 %	200 %	ASTM D638
Flexural Modulus ²	193000 psi	1330 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
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Notched Izod Impact (73°F (23°C))	2.0 ft·lb/in	110 J/m	ASTM D256
Instrumented Dart Impact (73°F (23°C))	292 in·lb	33.0 J	ASTM D3763

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
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Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed	176 °F	80.0 °C	
264 Psi (1.8 Mpa), Unannealed	120 °F	49.0 °C	

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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.