

Technical Data Sheet

Polyfort FPP 20 TE

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics

Product Description

20% talc filled PP-Homopolymer for extrusion and injection molding

General

Filler / Reinforcement	• Talc, 20% Filler by Weight
Automotive Specifications	• GM QK 003811 Color: Black
Processing Method	• Extrusion • Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (230°C/2.16 Kg)	3.0 cm ³ /10min	3.0 cm ³ /10min	ISO 1133

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	377000 psi	2600 MPa	ISO 527-1/1A/1
Tensile Stress (Yield)	4790 psi	33.0 MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	8.0 %	8.0 %	ISO 527-2/1A/50
Flexural Modulus	377000 psi	2600 MPa	ISO 178
Flexural Stress	7250 psi	50.0 MPa	ISO 178
Flexural Strain at Flexural Strength	6.5 %	6.5 %	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	0.95 ft·lb/in ²	2.0 kJ/m ²	
73°F (23°C)	2.9 ft·lb/in ²	6.0 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	8.1 ft·lb/in ²	17 kJ/m ²	
73°F (23°C)	29 ft·lb/in ²	60 kJ/m ²	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness (H 358/30)	10700 psi	74.0 MPa	ISO 2039-1

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	257 °F	125 °C	ISO 75-2/Bf
264 Psi (1.8 Mpa), Unannealed	158 °F	70.0 °C	ISO 75-2/Af
Vicat Softening Temperature			
--	194 °F	90.0 °C	ISO 306/B50
--	311 °F	155 °C	ISO 306/A50
Ball Pressure Test (257°F (125°C))	Pass	Pass	IEC 60695-10-2

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
Flammability Classification			IEC 60695-11-10, -20
0.06 In (1.5 Mm)	HB	HB	
0.12 In (3.0 Mm)	HB	HB	

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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 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.