

Technical Data Sheet



Ferrex GPP20CS42BK

Polypropylene
LyondellBasell Industries
Engineering Plastics

General			
Material Status	• Commercial: Active		
Availability	• Latin America • North America		
Filler / Reinforcement	• Calcium Carbonate, 20% Filler by Weight		
Additive	• Impact Modifier		
Features	• Good Impact Resistance • High Gloss • Impact Modified		
Uses	• Housings • Lawn and Garden Equipment		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.05	1.05 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	10 g/10 min	10 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (73°F (23°C))	3400 psi	23.4 MPa	ASTM D638
Tensile Elongation (Break, 73°F (23°C))	150 %	150 %	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : 73°F (23°C)	194000 psi	1340 MPa	
Tangent : 73°F (23°C)	220000 psi	1520 MPa	
Flexural Strength (73°F (23°C))	5100 psi	35.2 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	1.9 ft-lb/in	100 J/m	ASTM D256
Gardner Impact (73°F (23°C))	270 in-lb	30.5 J	ASTM D5420
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	68	68	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	202 °F	94.4 °C	
264 psi (1.8 MPa), Unannealed	125 °F	51.7 °C	
	124	51.1	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	200 °F	93 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Rear Temperature	390 to 400 °F	199 to 204 °C
Middle Temperature	400 to 410 °F	204 to 210 °C
Front Temperature	410 to 420 °F	210 to 216 °C
Nozzle Temperature	420 to 430 °F	216 to 221 °C
Mold Temperature	115 to 140 °F	46 to 60 °C
Back Pressure	20.0 to 50.0 psi	0.138 to 0.345 MPa
Screw Speed	100 to 150 rpm	100 to 150 rpm
Clamp Tonnage	2.0 to 3.0 tons/in ²	2.8 to 4.1 kN/cm ²
Screw L/D Ratio	20.0:1.0	20.0:1.0
Screw Compression Ratio	2.0:1.0	2.0:1.0

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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