

Technical Data Sheet

# Ferrex GPP20CS14UL-BK

Polypropylene Copolymer  
LyondellBasell Industries  
Engineering Plastics

General			
Filler / Reinforcement	• Calcium Carbonate, 21% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Good Impact Resistance	• Heat Stabilized	• High Gloss
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	1.06	1.06 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 Kg)	21 g/10 min	21 g/10 min	ASTM D1238

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (73°F (23°C))	2500 psi	17.2 MPa	ASTM D638
Tensile Elongation (Break, 73°F (23°C))	130 %	130 %	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : 73°F (23°C)	152000 psi	1050 MPa	
Tangent : 73°F (23°C)	172000 psi	1190 MPa	
Flexural Strength (73°F (23°C))	3800 psi	26.2 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	2.0 ft·lb/in	110 J/m	ASTM D256
Unnotched Izod Impact (73°F (23°C))	23 ft·lb/in	1200 J/m	ASTM D4812
Gardner Impact (73°F (23°C))	280 in·lb	31.6 J	ASTM D5420

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	62	62	ASTM D2240

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed	190 °F	87.8 °C	
264 Psi (1.8 Mpa), Unannealed	125 °F	51.7 °C	

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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 <sup>2</sup>	2.8 to 4.1 kN/cm <sup>2</sup>
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.