

Technical Data Sheet

**Matrixx FP63E45**

Polyamide 6
LyondellBasell Industries
Engineering Plastics

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 45% Filler by Weight		
Forms	• Pellets		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.50	1.50 g/cm ³	ASTM D792
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	24000 psi	165 MPa	ASTM D638
Flexural Modulus	1.60E+6 psi	11000 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	1.5 ft-lb/in	80 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	410 °F	210 °C	
264 psi (1.8 MPa), Unannealed	395 °F	202 °C	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	160 to 200 °F	71 to 93 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.10 %	0.10 %
Rear Temperature	480 to 520 °F	249 to 271 °C
Middle Temperature	480 to 540 °F	249 to 282 °C
Front Temperature	480 to 540 °F	249 to 282 °C
Processing (Melt) Temp	480 to 540 °F	249 to 282 °C
Mold Temperature	160 to 180 °F	71 to 82 °C
Injection Rate	Moderate-Fast	Moderate-Fast
Back Pressure	< 50.0 psi	< 0.345 MPa
Cushion	0.250 to 0.500 in	6.35 to 12.7 mm

Injection Notes

- Dessicant dryer with -20°F dewpoint
- Screw Speed: Slow to Medium

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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