

Technical Data Sheet



Matrixx F663E33HBGY311

Polyamide 66
LyondellBasell Industries
Engineering Plastics

Product Description

33% glass fiber reinforced, Polyamide 66

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Heat Aging Resistant • High Stiffness • Oil Resistant
Appearance	• Grey
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Dry	Conditioned	Unit	Test Method
Density	1.40	--	g/cm ³	ISO 1183/A
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				
--	1.47E+6 (10200)	1.02E+6 (7050)	psi (MPa)	ASTM D638
--	1.49E+6 (10300)	1.09E+6 (7510)	psi (MPa)	ISO 527-1
Tensile Strength				
Break	21800 (150)	13200 (91.0)	psi (MPa)	ASTM D638
Break	22400 (154)	13900 (96.0)	psi (MPa)	ISO 527-2
Flexural Modulus - Chord				
--	1.39E+6 (9590)	931000 (6420)	psi (MPa)	ASTM D790
--	1.40E+6 (9680)	985000 (6790)	psi (MPa)	ISO 178
Flexural Stress				
--	32100 (221)	20200 (139)	psi (MPa)	ISO 178
Yield	28600 (197)	17800 (123)	psi (MPa)	ASTM D790
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F (-30°C)	1.8 (3.8)	--	ft-lb/in ² (kJ/m ²)	
73°F (23°C)	2.2 (4.7)	3.1 (6.4)	ft-lb/in ² (kJ/m ²)	
Notched Izod Impact				ASTM D256
-22°F (-30°C)	0.75 (40)	--	ft-lb/in (J/m)	
73°F (23°C)	0.88 (47)	1.3 (71)	ft-lb/in (J/m)	

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
66 psi (0.45 MPa), Unannealed	502 (261)	--	°F (°C)	ASTM D648
66 psi (0.45 MPa), Unannealed	498 (259)	--	°F (°C)	ISO 75-2/Bf
264 psi (1.8 MPa), Unannealed	482 (250)	--	°F (°C)	ASTM D648
264 psi (1.8 MPa), Unannealed	477 (247)	--	°F (°C)	ISO 75-2/Af
CLTE				ASTM E831
Flow : 122°F (50°C)	1.2E-5 (2.2E-5)	--	in/in/°F (cm/cm/°C)	
Transverse : 140°F (60°C)	4.2E-5 (7.6E-5)	--	in/in/°F (cm/cm/°C)	
Transverse : 212°F (100°C)	7.2E-5 (1.3E-4)	--	in/in/°F (cm/cm/°C)	

Additional Information

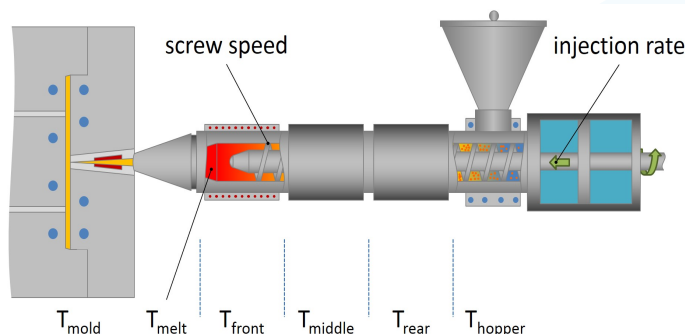
Conditioned: 7 DAYS AT 70°C/62% HUMIDITY

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Injection	Dry (English)	Dry (SI)
Drying Temperature - Desiccant Dryer	180 °F	82 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Moisture	0.04 to 0.10 %	0.04 to 0.10 %
Rear Temperature	480 to 520 °F	249 to 271 °C
Middle Temperature	480 to 560 °F	249 to 293 °C
Front Temperature	480 to 560 °F	249 to 293 °C
Nozzle Temperature	480 to 560 °F	249 to 293 °C
Processing (Melt) Temp	480 to 560 °F	249 to 293 °C
Mold Temperature	150 to 200 °F	66 to 93 °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

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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