

Technical Data Sheet

Matrixx F663E33HBGY311

Polyamide 66
LyondellBasell Industries
Engineering Plastics

Product Description

33% glass fiber reinforced, Polyamide 66

General

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/cm³	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/in² (kJ/m²)	
73°F (23°C)	2.2 (4.7)	3.1 (6.4)	ft·lb/in² (kJ/m²)	
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.