

Technical Data Sheet

Matrixx 50S5102

Polycarbonate
 LyondellBasell Industries
 Engineering Plastics

General	
Filler / Reinforcement	• Glass Fiber, 10% Filler by Weight
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.25	1.25 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 Kg)	10 g/10 min	10 g/10 min	ASTM D1238

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	9200 psi	63.4 MPa	ASTM D638
Flexural Modulus	490000 psi	3380 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	2.0 ft·lb/in	110 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	295 °F	146 °C	
264 Psi (1.8 Mpa), Unannealed	285 °F	141 °C	
RTI Str	200 °F	93.3 °C	UL 746B

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating (0.06 In (1.5 Mm))	HB	HB	UL 94

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	250 °F	121 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Rear Temperature	540 to 590 °F	282 to 310 °C
Middle Temperature	540 to 590 °F	282 to 310 °C
Front Temperature	540 to 590 °F	282 to 310 °C
Processing (Melt) Temp	560 to 610 °F	293 to 321 °C
Mold Temperature	160 to 220 °F	71 to 104 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	50.0 to 100 psi	0.345 to 0.689 MPa
Screw Speed	40 to 75 rpm	40 to 75 rpm
Cushion	0.250 to 0.500 in	6.35 to 12.7 mm

Injection Notes

-20°F Dewpoint

Notes

These are typical property values not to be construed as specification limits.