

Technical Data Sheet

**Matrixx 50S5102**

Polycarbonate
LyondellBasell Industries
Engineering Plastics

General

Material Status	• Commercial: Active
Availability	• North America
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.

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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