

Technical Data Sheet



Matrixx 55N5006UT(f1)

Polycarbonate
LyondellBasell Industries
Engineering Plastics

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Flame Retardant
Features	• Flame Retardant
Forms	• Pellets

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.23	1.23 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	12 g/10 min	12 g/10 min	ASTM D1238
Outdoor Suitability (White)	f1	f1	UL 746C
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	8800 psi	60.7 MPa	ASTM D638
Flexural Modulus - Tangent	325000 psi	2240 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	13 ft·lb/in	690 J/m	ASTM D256
Gardner Impact	> 320 in·lb	> 36.2 J	ASTM D5420
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	265 °F	129 °C	
264 psi (1.8 MPa), Unannealed	260 °F	127 °C	
RTI Elec			UL 746B
0.06 in (1.5 mm)	239 °F	115 °C	
0.12 in (3.0 mm)	239 °F	115 °C	
RTI Imp			UL 746B
0.06 in (1.5 mm)	239 °F	115 °C	
0.12 in (3.0 mm)	239 °F	115 °C	
RTI Str			UL 746B
0.06 in (1.5 mm)	239 °F	115 °C	
0.12 in (3.0 mm)	239 °F	115 °C	
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Comparative Tracking Index (CTI)	PLC 2	PLC 2	UL 746A
High Amp Arc Ignition (HAI)			UL 746A
0.06 in (1.5 mm)	PLC 0	PLC 0	
Hot-wire Ignition (HWI)			UL 746A
0.06 in (1.5 mm)	PLC 0	PLC 0	
0.12 in (3.0 mm)	PLC 0	PLC 0	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.06 in (1.5 mm)	V-0	V-0	
0.12 in (3.0 mm)	V-0	V-0	

Additional Information

The value listed as Mold Shrinkage, ASTM D955, was tested in accordance with Matrixx test methods.

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	250 °F	121 °C
Drying Time	4.0 hr	4.0 hr
Rear Temperature	480 to 570 °F	249 to 299 °C
Middle Temperature	480 to 570 °F	249 to 299 °C
Front Temperature	480 to 570 °F	249 to 299 °C
Processing (Melt) Temp	540 to 570 °F	282 to 299 °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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