

Mitsubishi Iupilon[®] S3000R

Information provided by US distributor Polymer Technology and Services, LLC (PTS).

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in ³	ASTM D792
Water Absorption	0.25 %	0.25 %	24 hours at 73°F
Linear Mold Shrinkage	0.0050 - 0.0080 cm/cm	0.0050 - 0.0080 in/in	ASTM D955
Melt Flow	16.5 g/10 min @Load 1.20 kg, Temperature 300 °C	16.5 g/10 min @Load 2.65 lb, Temperature 572 °F	
Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	65	65	ASTM D785
Hardness, Rockwell R	122	122	ASTM D785
Tensile Strength, Ultimate	66.5 MPa @Thickness 3.17 mm	9650 psi @Thickness 0.125 in	
Tensile Strength, Yield	60.3 MPa @Thickness 3.17 mm	8750 psi @Thickness 0.125 in	
Elongation at Break	120 % @Thickness 3.17 mm	120 % @Thickness 0.125 in	
Flexural Yield Strength	85.1 MPa @Thickness 3.17 mm	12300 psi @Thickness 0.125 in	
Flexural Modulus	2.25 GPa @Thickness 3.17 mm	326 ksi @Thickness 0.125 in	
Izod Impact, Notched	8.81 J/cm @Thickness 3.17 mm	16.5 ft-lb/in @Thickness 0.125 in	
Thermal Properties	Metric	English	Comments
CTE, linear	117 µm/m-°C @Temperature 20.0 °C	65.0 µin/in-°F @Temperature 68.0 °F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	140 °C	284 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	128 °C	262 °F	ASTM D648
Flammability, UL94	V-2 @Thickness 1.59 mm	V-2 @Thickness 0.0625 in	

Optical Properties	Metric	English	Comments
Refractive Index	1.585 @Wavelength 589.3 nm	1.585 @Wavelength 589.3 nm	nD

Transmission, Visible	87 %	87 %
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Processing Properties	Metric	English	Comments
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Rear Barrel Temperature	249 - 271 °C	480 - 520 °F
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Middle Barrel Temperature	260 - 271 °C	500 - 520 °F
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Front Barrel Temperature	271 - 288 °C	520 - 550 °F
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Nozzle Temperature	266 - 282 °C	510 - 540 °F
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Melt Temperature	277 - 293 °C	530 - 560 °F
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Mold Temperature	71.1 - 93.3 °C	160 - 200 °F
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Drying Temperature	121 °C	250 °F
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Dry Time	3 - 4 hour	3 - 4 hour	48 hours max.
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Injection Pressure	68.9 - 124 MPa	10000 - 18000 psi
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Back Pressure	0.345 - 1.38 MPa	50.0 - 200 psi
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Clamp Pressure	27.6 - 68.9 MPa	4000 - 10000 psi
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Shot Size	40 - 60 %	40 - 60 %
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Screw Speed	40 - 70 rpm	40 - 70 rpm
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Descriptive Properties	
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Injection Speed- Edge Gate	Slow to Medium
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Injection Speed- Tab Gate	Medium to Fast
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Injection Speed- Tunnel Gate	Fast
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