

Mitsubishi Iupilon® S3001R 16.5 MFI FDA Compliant Polycarbonate With Release

Categories: [Polymer](#); [Thermoplastic](#); [Polycarbonate \(PC\)](#); [Polycarbonate, Unreinforced, Flame Retardant](#)

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

Key Words: PC; Mitsubishi Engineering Plastics Corp.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

| 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°C |
| 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 | 1.585 | nD |
| Transmission, Visible | 87 % | 87 % | |
| Processing Properties | Metric | English | Comments |
| Rear Barrel Temperature | 249 - 271 °C | 480 - 520 °F | |
| Middle Barrel Temperature | 260 - 271 °C | 500 - 520 °F | |
| Front Barrel Temperature | 271 - 288 °C | 520 - 550 °F | |
| Nozzle Temperature | 266 - 282 °C | 510 - 540 °F | |
| Melt Temperature | 277 - 293 °C | 530 - 560 °F | |
| Mold Temperature | 71.1 - 93.3 °C | 160 - 200 °F | |
| Drying Temperature | 121 °C | 250 °F | |
| Dry Time | 3 - 4 hour | 3 - 4 hour | 48 hours max. |
| Injection Pressure | 68.9 - 124 MPa | 10000 - 18000 psi | |
| Back Pressure | 0.345 - 1.38 MPa | 50.0 - 200 psi | |
| Clamp Pressure | 27.6 - 68.9 MPa | 4000 - 10000 psi | |
| Shot Size | 40 - 60 % | 40 - 60 % | |
| Screw Speed | 40 - 70 rpm | 40 - 70 rpm | |
| Descriptive Properties | | | |
| Injection Speed- Edge Gate | | Slow to Medium | |
| Injection Speed- Tab Gate | | Medium to Fast | |
| Injection Speed- Tunnel Gate | | Fast | |

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.