# Iupilon™ S-3000VR

**Mitsubishi Engineering-Plastics Corp - *Polycarbonate***

## General Information

| | | | |
|---|---|---|---|
| **Product Description** | | | |
| High Flow, Mold release improved | | | |
| **General** | | | |
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Features | • Good Mold Release | • High Flow | • Low Viscosity |
| Uses | • General Purpose | | |

## Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.20 | g/cm³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg) | 15 | g/10 min | ISO 1133 |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg) | 14 | cm³/10min | ISO 1133 |
| Molding Shrinkage | | | Internal Method |
| Across Flow | 0.50 to 0.70 | % | |
| Flow | 0.50 to 0.70 | % | |
| Water Absorption (24 hr, 73°F) | 0.24 | % | Internal Method |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 348000 | psi | ISO 527-1/1 |
| Tensile Stress (Yield) | 8990 | psi | ISO 527-2/50 |
| Tensile Strain (Yield) | 6.7 | % | ISO 527-2/50 |
| Tensile Strain (Break) | 120 | % | ISO 527-2/50 |
| Flexural Modulus [2] | 334000 | psi | ISO 178 |
| Flexural Stress [2] | 13500 | psi | ISO 178 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength (73°F) | 32 | ft·lb/in² | ISO 179 |
| Charpy Unnotched Impact Strength (73°F) | No Break | | ISO 179 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (66 psi, Unannealed) | 282 | °F | ISO 75-2/B |
| Deflection Temperature Under Load (264 psi, Unannealed) | 255 | °F | ISO 75-2/A |
| CLTE - Flow | 3.6E-5 | in/in/°F | ISO 11359-2 |
| CLTE - Transverse | 3.7E-5 | in/in/°F | ISO 11359-2 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | 6.0E+15 | ohms | IEC 60093 |
| Volume Resistivity | 3.0E+16 | ohms·cm | IEC 60093 |
| Electric Strength | | | IEC 60243-1 |
| 0.0394 in | 790 | V/mil | |
| 0.118 in | 460 | V/mil | |
| Dielectric Constant | | | IEC 60250 |
| 1 MHz | 3.10 | | |
| 100 MHz | 3.10 | | |
| Dissipation Factor | | | IEC 60250 |
| 1 MHz | 9.0E-3 | | |
| 100 MHz | 6.0E-4 | | |
| Comparative Tracking Index (CTI) | PLC 2 | | UL 746A |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | | | UL 94 |
| 0.015 in | V-2 | | |
| 0.06 in | V-2 | | |

| | |
|---|---|
| 0.12 in | V-2 |

## Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature - Hot Air Dryer | 248 | °F |
| Drying Time - Hot Air Dryer | 4.0 to 8.0 | hr |
| Rear Temperature | 518 to 572 | °F |
| Middle Temperature | 518 to 572 | °F |
| Front Temperature | 518 to 572 | °F |
| Nozzle Temperature | 518 to 572 | °F |
| Mold Temperature | 158 to 212 | °F |

## Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 0.079 in/min