

## Iupilon™ S-2000VR

Mitsubishi Engineering-Plastics Corp - Polycarbonate

| General Information                        |                                        |           |                 |
|--------------------------------------------|----------------------------------------|-----------|-----------------|
| Product Description                        |                                        |           |                 |
| Medium Viscosity, Mold release improved    |                                        |           |                 |
| General                                    |                                        |           |                 |
| Features                                   | • Good Mold Release • Medium Viscosity |           |                 |
| Uses                                       | • General Purpose                      |           |                 |
| ASTM & ISO Properties <sup>1</sup>         |                                        |           |                 |
| Physical                                   | Nominal Value                          | Unit      | Test Method     |
| Density                                    | 1.20                                   | g/cm³     | ISO 1183        |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)   | 10                                     | g/10 min  | ISO 1133        |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg) | 9.0                                    | 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, 23°C)             | 0.24                                   | %         | Internal Method |
| Mechanical                                 | Nominal Value                          | Unit      | Test Method     |
| Tensile Modulus                            | 2400                                   | MPa       | ISO 527-1/1     |
| Tensile Stress (Yield)                     | 61.0                                   | MPa       | ISO 527-2/50    |
| Tensile Strain                             |                                        |           | ISO 527-2/50    |
| Yield                                      | 5.6                                    | %         |                 |
| Break                                      | 110                                    | %         |                 |
| Flexural Modulus <sup>2</sup>              | 2300                                   | MPa       | ISO 178         |
| Flexural Stress <sup>2</sup>               | 93.0                                   | MPa       | ISO 178         |
| Impact                                     | Nominal Value                          | Unit      | Test Method     |
| Charpy Notched Impact Strength (23°C)      | 76                                     | kJ/m²     | ISO 179         |
| Charpy Unnotched Impact Strength (23°C)    | No Break                               |           | ISO 179         |
| Thermal                                    | Nominal Value                          | Unit      | Test Method     |
| Deflection Temperature Under Load          |                                        |           |                 |
| 0.45 MPa, Unannealed                       | 143                                    | °C        | ISO 75-2/B      |
| 1.8 MPa, Unannealed                        | 129                                    | °C        | ISO 75-2/A      |
| CLTE                                       |                                        |           | ISO 11359-2     |
| Flow                                       | 6.5E-5                                 | cm/cm/°C  |                 |
| Transverse                                 | 6.6E-5                                 | cm/cm/°C  |                 |



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| 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 |
| 1.00 mm                          | 31            | kV/mm   |             |
| 3.00 mm                          | 18            | kV/mm   |             |
| 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       |
| 0.38 mm                          | V-2           |         |             |
| 1.5 mm                           | V-2           |         |             |
| 3.0 mm                           | V-2           |         |             |

### Processing Information

| Injection                          | Nominal Value | Unit |
|------------------------------------|---------------|------|
| Drying Temperature - Hot Air Dryer | 120           | °C   |
| Drying Time - Hot Air Dryer        | 4.0 to 8.0    | hr   |
| Rear Temperature                   | 270 to 300    | °C   |
| Middle Temperature                 | 270 to 300    | °C   |
| Front Temperature                  | 270 to 300    | °C   |
| Nozzle Temperature                 | 270 to 300    | °C   |
| Mold Temperature                   | 70 to 100     | °C   |

