

## Iupilon™ S-2000V

Mitsubishi Engineering-Plastics Corp - Polycarbonate

| General Information                        |                    |           |                 |
|--------------------------------------------|--------------------|-----------|-----------------|
| Product Description                        |                    |           |                 |
| Medium Viscosity                           |                    |           |                 |
| General                                    |                    |           |                 |
| Features                                   | • 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   |

