

## Iupilon™ E-2001R

Mitsubishi Engineering-Plastics Corp - Polycarbonate

### General Information

#### Product Description

Extrusion, FDA compliant, Mold release improved

#### General

|                   |                        |                  |                 |
|-------------------|------------------------|------------------|-----------------|
| Material Status   | • Commercial: Active   |                  |                 |
| Availability      | • Africa & Middle East | • Europe         | • North America |
|                   | • Asia Pacific         | • Latin America  |                 |
| Features          | • Good Mold Release    | • High Viscosity |                 |
| Uses              | • General Purpose      |                  |                 |
| Processing Method | • Extrusion            |                  |                 |

### Properties <sup>1</sup>

| Physical                                                | Nominal Value | Unit                   | Test Method     |
|---------------------------------------------------------|---------------|------------------------|-----------------|
| Density                                                 | 1.20          | g/cm <sup>3</sup>      | ISO 1183        |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)                | 5.3           | g/10 min               | ISO 1133        |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)              | 5.0           | cm <sup>3</sup> /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)                                  | 8700          | psi                    | ISO 527-2/50    |
| Tensile Strain (Yield)                                  | 5.4           | %                      | ISO 527-2/50    |
| Tensile Strain (Break)                                  | 110           | %                      | ISO 527-2/50    |
| Flexural Modulus <sup>2</sup>                           | 334000        | psi                    | ISO 178         |
| Flexural Stress <sup>2</sup>                            | 13500         | psi                    | ISO 178         |
| Impact                                                  | Nominal Value | Unit                   | Test Method     |
| Charpy Notched Impact Strength (73°F)                   | 42            | ft-lb/in <sup>2</sup>  | 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)  | 293           | °F                     | ISO 75-2/B      |
| Deflection Temperature Under Load (264 psi, Unannealed) | 268           | °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         |

### 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                   | 536 to 590 °F |
| Middle Temperature                 | 536 to 590 °F |
| Front Temperature                  | 536 to 590 °F |
| Nozzle Temperature                 | 536 to 590 °F |
| Mold Temperature                   | 176 to 230 °F |

Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 0.079 in/min

