

## Iupilon™ CFH2010

Mitsubishi Engineering-Plastics Corp - Polycarbonate

| General Information                        |                                      |           |                 |
|--------------------------------------------|--------------------------------------|-----------|-----------------|
| Product Description                        |                                      |           |                 |
| Carbon Fiber Reinforced, CF10%             |                                      |           |                 |
| General                                    |                                      |           |                 |
| Filler / Reinforcement                     | • Carbon Fiber, 10% Filler by Weight |           |                 |
| Features                                   | • High Rigidity • High Stiffness     |           |                 |
| Uses                                       | • General Purpose                    |           |                 |
| ASTM & ISO Properties <sup>1</sup>         |                                      |           |                 |
| Physical                                   | Nominal Value                        | Unit      | Test Method     |
| Density                                    | 1.24                                 | g/cm³     | ISO 1183        |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)   | 7.0                                  | g/10 min  | ISO 1133        |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg) | 6.6                                  | cm³/10min | ISO 1133        |
| Molding Shrinkage                          |                                      |           | Internal Method |
| Across Flow                                | 0.30 to 0.50                         | %         |                 |
| Flow                                       | 0.10 to 0.30                         | %         |                 |
| Water Absorption (24 hr, 23°C)             | 0.11                                 | %         | Internal Method |
| Mechanical                                 | Nominal Value                        | Unit      | Test Method     |
| Tensile Modulus                            | 8000                                 | MPa       | ISO 527-1/1     |
| Tensile Stress (Break)                     | 111                                  | MPa       | ISO 527-2/5     |
| Tensile Strain (Break)                     | 3.1                                  | %         | ISO 527-2/5     |
| Flexural Modulus <sup>2</sup>              | 7200                                 | MPa       | ISO 178         |
| Flexural Stress <sup>2</sup>               | 165                                  | MPa       | ISO 178         |
| Impact                                     | Nominal Value                        | Unit      | Test Method     |
| Charpy Notched Impact Strength (23°C)      | 8.0                                  | kJ/m²     | ISO 179         |
| Charpy Unnotched Impact Strength (23°C)    | 49                                   | kJ/m²     | ISO 179         |
| Thermal                                    | Nominal Value                        | Unit      | Test Method     |
| Deflection Temperature Under Load          |                                      |           |                 |
| 0.45 MPa, Unannealed                       | 150                                  | °C        | ISO 75-2/B      |
| 1.8 MPa, Unannealed                        | 146                                  | °C        | ISO 75-2/A      |
| CLTE                                       |                                      |           | ISO 11359-2     |
| Flow                                       | 1.6E-5                               | cm/cm/°C  |                 |
| Transverse                                 | 6.4E-5                               | cm/cm/°C  |                 |
| Flammability                               | Nominal Value                        | Unit      | Test Method     |
| Flame Rating (0.40 mm)                     | HB                                   |           | UL 94           |



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| 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                   | 290 to 310    | °C   |
| Middle Temperature                 | 290 to 310    | °C   |
| Front Temperature                  | 290 to 310    | °C   |
| Nozzle Temperature                 | 290 to 310    | °C   |
| Mold Temperature                   | 80 to 120     | °C   |

