

## Iupilon™ ML300

Mitsubishi Engineering-Plastics Corp - Polycarbonate

### General Information

#### Product Description

SAE Approved, High Flow

#### General

|                 |                           |                 |                 |
|-----------------|---------------------------|-----------------|-----------------|
| Material Status | • Commercial: Active      |                 |                 |
| Availability    | • Africa & Middle East    | • Europe        | • North America |
|                 | • Asia Pacific            | • Latin America |                 |
| Features        | • Low Viscosity           |                 |                 |
| Uses            | • Automotive Applications |                 |                 |

### 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)                | 16            | g/10 min               | ISO 1133        |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)              | 15            | 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   | 363000        | psi                    | ISO 527-1/1     |
| Tensile Stress (Yield)                                  | 8990          | psi                    | ISO 527-2/50    |
| Tensile Strain (Yield)                                  | 6.6           | %                      | ISO 527-2/50    |
| Tensile Strain (Break)                                  | 120           | %                      | ISO 527-2/50    |
| Flexural Modulus <sup>2</sup>                           | 334000        | psi                    | ISO 178         |
| Flexural Stress <sup>2</sup>                            | 13200         | psi                    | ISO 178         |
| Impact  | Nominal Value | Unit                   | Test Method     |
| Charpy Notched Impact Strength (73°F)                   | 30            | 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)  | 282           | °F                     | ISO 75-2/B      |
| Deflection Temperature Under Load (264 psi, Unannealed) | 255           | °F                     | ISO 75-2/A      |
| CLTE - Flow   | 3.5E-5        | in/in/°F               | ISO 11359-2     |
| CLTE - Transverse                                       | 4.1E-5        | in/in/°F               | ISO 11359-2     |
| Electrical  | Nominal Value | Unit                   | Test Method     |
| Surface Resistivity                                     | 4.0E+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  | 430           | 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   | 7.0E-4        |                        |                 |

### 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 572 °F |
| Middle Temperature | 536 to 572 °F |
| Front Temperature  | 536 to 572 °F |
| Nozzle Temperature | 536 to 572 °F |
| Mold Temperature   | 158 to 212 °F |

#### Notes

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

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

