



# Mitsubishi Engineering-Plastics Corp.

## Iupilon™ DM2207VUR

Mitsubishi Engineering-Plastics Corp - Polycarbonate

| General Information                        |                        |                                                 |                 |
|--------------------------------------------|------------------------|-------------------------------------------------|-----------------|
| <b>Product Description</b>                 |                        |                                                 |                 |
| Light Diffusion, Medium class, Extrusion   |                        |                                                 |                 |
| <b>General</b>                             |                        |                                                 |                 |
| Features                                   | • Good Light Diffusion | • High Viscosity                                |                 |
| Uses                                       | • Displays<br>• LEDs   | • Lighting Applications<br>• Lighting Diffusers |                 |
| Processing Method                          | • Extrusion            |                                                 |                 |
| ASTM & ISO 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)   | 8.0                    | g/10 min                                        | ISO 1133        |
| Melt Volume-Flow Rate (MVR) (300°C/1.2 kg) | 8.0                    | 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 (Saturation, 23°C)        | 0.24                   | %                                               | ISO 62          |
| Mechanical                                 | Nominal Value          | Unit                                            | Test Method     |
| Tensile Modulus                            | 2500                   | MPa                                             | ISO 527-1/1     |
| Tensile Stress (Yield)                     | 64.0                   | MPa                                             | ISO 527-2/50    |
| Tensile Strain                             |                        |                                                 | ISO 527-2/50    |
| Yield                                      | 6.0                    | %                                               |                 |
| Break                                      | 100                    | %                                               |                 |
| Flexural Modulus <sup>2</sup>              | 2400                   | MPa                                             | ISO 178         |
| Flexural Stress <sup>2</sup>               | 97.0                   | MPa                                             | ISO 178         |
| Impact                                     | Nominal Value          | Unit                                            | Test Method     |
| Charpy Notched Impact Strength (23°C)      | 75                     | kJ/m <sup>2</sup>                               | 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                       | 136                    | °C                                              | ISO 75-2/B      |
| 1.8 MPa, Unannealed                        | 123                    | °C                                              | ISO 75-2/A      |
| CLTE                                       |                        |                                                 | ISO 11359-2     |
| Flow                                       | 6.5E-5                 | cm/cm/°C                                        |                 |
| Transverse                                 | 6.6E-5                 | cm/cm/°C                                        |                 |
| Electrical                                 | Nominal Value          | Unit                                            | Test Method     |
| Surface Resistivity                        | 6.0E+15                | ohms                                            | IEC 60093       |
| Volume Resistivity                         | 3.0E+16                | ohms·cm                                         | IEC 60093       |



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| Flammability           | Nominal Value | Unit | Test Method |
|------------------------|---------------|------|-------------|
| Flame Rating (0.75 mm) | V-2           |      | UL 94       |

| 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   |  |

