

## NOVADURAN™ 5010R7U3X

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate

### General Information

#### Product Description

Un-reinforced / HB equiv. per in-house testing, Light stabilized, High reflectivity

#### General

|          |                                                                                                                                                                                |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Features | <ul style="list-style-type: none"> <li>High Reflectivity</li> <li>Light Stabilized</li> </ul>                                                                                  |
| Uses     | <ul style="list-style-type: none"> <li>Automotive Applications</li> <li>Automotive Electronics</li> <li>Electrical/Electronic Applications</li> <li>General Purpose</li> </ul> |

### ASTM & ISO Properties <sup>1</sup>

| Physical                                   | Nominal Value | Unit                   | Test Method     |
|--------------------------------------------|---------------|------------------------|-----------------|
| Density                                    | 1.40          | g/cm <sup>3</sup>      | ISO 1183        |
| Melt Volume-Flow Rate (MVR) (250°C/5.0 kg) | 31            | cm <sup>3</sup> /10min | ISO 1133        |
| Molding Shrinkage                          |               |                        | Internal Method |
| Across Flow : 2.00 mm                      | 2.1           | %                      |                 |
| Flow : 2.00 mm                             | 2.2           | %                      |                 |
| Water Absorption (Saturation, 23°C)        | 0.10          | %                      | ISO 62          |
| Mechanical                                 | Nominal Value | Unit                   | Test Method     |
| Tensile Modulus                            | 2700          | MPa                    | ISO 527-1/1     |
| Tensile Stress (Yield)                     | 60.0          | MPa                    | ISO 527-2/50    |
| Tensile Strain (Yield)                     | 18            | %                      | ISO 527-2/50    |
| Flexural Modulus <sup>2</sup>              | 2720          | MPa                    | ISO 178         |
| Flexural Stress <sup>2</sup>               | 87.0          | MPa                    | ISO 178         |
| Impact                                     | Nominal Value | Unit                   | Test Method     |
| Charpy Notched Impact Strength (23°C)      | 4.0           | kJ/m <sup>2</sup>      | ISO 179         |
| Thermal                                    | Nominal Value | Unit                   | Test Method     |
| Deflection Temperature Under Load          |               |                        |                 |
| 0.45 MPa, Annealed                         | 175           | °C                     | ISO 75-2/B      |
| 1.8 MPa, Annealed                          | 70.0          | °C                     | ISO 75-2/A      |
| Melting Temperature                        | 224           | °C                     | ISO 11357-3     |

### Processing Information

| Injection                          | Nominal Value | Unit |
|------------------------------------|---------------|------|
| Drying Temperature - Hot Air Dryer | 120           | °C   |
| Drying Time - Hot Air Dryer        | 5.0 to 8.0    | hr   |
| Rear Temperature                   | 240 to 260    | °C   |
| Middle Temperature                 | 240 to 260    | °C   |
| Front Temperature                  | 240 to 260    | °C   |
| Nozzle Temperature                 | 260           | °C   |
| Mold Temperature                   | 60 to 100     | °C   |
| Injection Pressure                 | 20.0 to 150   | MPa  |



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| Injection      | Nominal Value | Unit |
|----------------|---------------|------|
| Injection Rate | Moderate-Fast |      |
| Screw Speed    | 80 to 150     | rpm  |

