

**NOVADURAN 5010R5 L2**

PBT

Mitsubishi Engineering-Plastics Corporation

| <b>Processing/Physical Characteristics</b> | <b>Value</b> | <b>Unit</b>            | <b>Test Standard</b> |
|--|--------------|------------------------|----------------------|
| <b>ISO Data</b>                            |              |                        |                      |
| Melt volume-flow rate, MVR                 | 35           | cm <sup>3</sup> /10min | ISO 1133             |
| Temperature                                | 250          | °C                     | -                    |
| Load                                       | 2.16         | kg                     | -                    |
| Molding shrinkage, parallel                | 1.9          | %                      | ISO 294-4, 2577      |
| Molding shrinkage, normal                  | 1.8          | %                      | ISO 294-4, 2577      |

| <b>Mechanical properties</b>          | <b>Value</b> | <b>Unit</b>       | <b>Test Standard</b> |
|---------------------------------------|--------------|-------------------|----------------------|
| <b>ISO Data</b>                       |              |                   |                      |
| Tensile Modulus                       | 2550         | MPa               | ISO 527              |
| Yield stress                          | 56           | MPa               | ISO 527              |
| Yield strain                          | 4.4          | %                 | ISO 527              |
| Strain at break                       | 140          | %                 | ISO 527              |
| Flexural modulus, 23°C                | 2350         | MPa               | ISO 178              |
| Flexural strength                     | 80           | MPa               | ISO 178              |
| Charpy impact strength, +23°C         | 200          | kJ/m <sup>2</sup> | ISO 179/1eU          |
| Charpy notched impact strength, +23°C | 4            | kJ/m <sup>2</sup> | ISO 179/1eA          |

| <b>Thermal properties</b>                   | <b>Value</b> | <b>Unit</b> | <b>Test Standard</b> |
|---|--------------|-------------|----------------------|
| <b>ISO Data</b>                             |              |             |                      |
| Melting temperature, 10°C/min               | 224          | °C          | ISO 11357-1/-3       |
| Temp. of deflection under load, 1.80 MPa    | 67           | °C          | ISO 75-1/-2          |
| Temp. of deflection under load, 0.45 MPa    | 165          | °C          | ISO 75-1/-2          |
| Coeff. of linear therm. expansion, parallel | 120          | E-6/K       | ISO 11359-1/-2       |
| Coeff. of linear therm. expansion, normal   | 120          | E-6/K       | ISO 11359-1/-2       |
| Burning behav. at 1.5 mm nom. thickn.       | HB           | class       | IEC 60695-11-10      |
| Thickness tested                            | 1.6          | mm          | -                    |
| Yellow Card available                       | yes          | -           | -                    |
| Burning behav. at thickness h               | HB           | class       | IEC 60695-11-10      |
| Thickness tested                            | 0.8          | mm          | -                    |
| Yellow Card available                       | yes          | -           | -                    |

| <b>Electrical properties</b> | <b>Value</b> | <b>Unit</b> | <b>Test Standard</b> |
|------------------------------|--------------|-------------|----------------------|
| <b>ISO Data</b>              |              |             |                      |
| Relative permittivity, 1MHz  | 3.3          | -           | IEC 62631-2-1        |
| Dissipation factor, 1MHz     | 220          | E-4         | IEC 62631-2-1        |
| Volume resistivity           | 4E14         | Ohm*m       | IEC 62631-3-1        |
| Surface resistivity          | 3E15         | Ohm         | IEC 62631-3-2        |
| Electric strength            | 22           | kV/mm       | IEC 60243-1          |
| Comparative tracking index   | 600          | -           | IEC 60112            |

| <b>Other properties</b> | <b>Value</b> | <b>Unit</b>       | <b>Test Standard</b> |
|-------------------------|--------------|-------------------|----------------------|
| Water absorption        | 0.1          | %                 | Sim. to ISO 62       |
| Density                 | 1310         | kg/m <sup>3</sup> | ISO 1183             |

| <b>Processing Recommendation Injection Molding</b> | <b>Value</b> | <b>Unit</b> | <b>Test Standard</b> |
|--|--------------|-------------|----------------------|
| Pre-drying - Temperature                           | 120          | °C          | -                    |
| Pre-drying - Time                                  | 5 - 8        | h           | -                    |
| Mold temperature                                   | 60 - 100     | °C          | -                    |
| Zone 1   | 240 - 260    | °C          | -                    |
| Zone 2   | 240 - 260    | °C          | -                    |
| Zone 3   | 240 - 260    | °C          | -                    |
| Nozzle temperature                                 | 260          | °C          | -                    |
| Screw speed  | 80 - 150     | rpm         | -                    |
| Injection pressure                                 | 20 - 150     | MPa         | -                    |

**Characteristics**

**Processing**

Injection Molding

**Applications**

Automotive, Electrical and Electronical, General Purpose

**Regional Availability**

North America, Europe, Asia Pacific, South and Central America, Near East/Africa