

## NOVADURAN™ 5026

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate

| General Information                                                                   |                                                       |                                                           |                 |
|---------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------|-----------------|
| Product Description                                                                   |                                                       |                                                           |                 |
| Un-reinforced / HB (0.8mm) equivalent per in-house testing, Extrusion, High viscosity |                                                       |                                                           |                 |
| General                                                                               |                                                       |                                                           |                 |
| Features                                                                              | • High Viscosity                                      |                                                           |                 |
| Uses                                                                                  | • Automotive Applications<br>• Automotive Electronics | • Electrical/Electronic Applications<br>• General Purpose |                 |
| ASTM & ISO Properties <sup>1</sup>                                                    |                                                       |                                                           |                 |
| Physical                                                                              | Nominal Value                                         | Unit                                                      | Test Method     |
| Density                                                                               | 1.31                                                  | g/cm³                                                     | ISO 1183        |
| Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)                                           | 8.0                                                   | cm³/10min                                                 | ISO 1133        |
| Molding Shrinkage                                                                     |                                                       |                                                           | Internal Method |
| Across Flow : 2.00 mm                                                                 | 1.8                                                   | %                                                         |                 |
| Flow : 2.00 mm                                                                        | 1.9                                                   | %                                                         |                 |
| Water Absorption (Saturation, 23°C)                                                   | 0.10                                                  | %                                                         | ISO 62          |
| Mechanical                                                                            | Nominal Value                                         | Unit                                                      | Test Method     |
| Tensile Modulus                                                                       | 2550                                                  | MPa                                                       | ISO 527-1/1     |
| Tensile Stress (Yield)                                                                | 51.0                                                  | MPa                                                       | ISO 527-2/50    |
| Tensile Strain                                                                        |                                                       |                                                           | ISO 527-2/50    |
| Yield                                                                                 | 4.0                                                   | %                                                         |                 |
| Break                                                                                 | > 200                                                 | %                                                         |                 |
| Flexural Modulus <sup>2</sup>                                                         | 2300                                                  | MPa                                                       | ISO 178         |
| Flexural Stress <sup>2</sup>                                                          | 75.0                                                  | MPa                                                       | ISO 178         |
| Impact                                                                                | Nominal Value                                         | Unit                                                      | Test Method     |
| Charpy Notched Impact Strength (23°C)                                                 | 5.0                                                   | kJ/m²                                                     | 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, Annealed                                                                    | 154                                                   | °C                                                        | ISO 75-2/B      |
| 1.8 MPa, Annealed                                                                     | 65.0                                                  | °C                                                        | ISO 75-2/A      |
| Melting Temperature                                                                   | 224                                                   | °C                                                        | ISO 11357-3     |
| CLTE                                                                                  |                                                       |                                                           | ISO 11359-2     |
| Flow : -30 to 35°C                                                                    | 8.0E-5                                                | cm/cm/°C                                                  |                 |
| Flow : -30 to 120°C                                                                   | 1.2E-4                                                | cm/cm/°C                                                  |                 |
| Flow : 35 to 120°C                                                                    | 1.4E-4                                                | cm/cm/°C                                                  |                 |
| Transverse : -30 to 35°C                                                              | 8.8E-5                                                | cm/cm/°C                                                  |                 |
| Transverse : -30 to 120°C                                                             | 1.2E-4                                                | cm/cm/°C                                                  |                 |
| Transverse : 35 to 120°C                                                              | 1.5E-4                                                | cm/cm/°C                                                  |                 |

# NOVADURAN™ 5026

Mitsubishi Engineering-Plastics Corp - Polybutylene Terephthalate

| Electrical                  | Nominal Value | Unit    | Test Method |
|-----------------------------|---------------|---------|-------------|
| Surface Resistivity         | 1.0E+14       | ohms    | IEC 60093   |
| Volume Resistivity          | 1.0E+16       | ohms·cm | IEC 60093   |
| Electric Strength           |               |         | IEC 60243-1 |
| 1.00 mm                     | 22            | kV/mm   |             |
| 2.00 mm                     | 17            | kV/mm   |             |
| Dielectric Constant (1 MHz) | 3.20          |         | IEC 60250   |
| Dissipation Factor (1 MHz)  | 0.020         |         | IEC 60250   |

## 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  |
| Injection Rate                     | Moderate-Fast |      |
| Screw Speed                        | 80 to 150     | rpm  |

## Notes

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

<sup>2</sup> 2.0 mm/min

(+) 18816996168

Poncioplastics.com