# NOVADURAN® 5010GN6-30

Polybutylene Terephthalate

Mitsubishi Engineering-Plastics Corp

## Message:

NOVADURAN® 5010GN6-30 is a Polybutylene Terephthalate (PBT) material filled with 30% glass fiber. It is available in Asia Pacific, Europe, or North America for injection molding.
Important attributes of NOVADURAN® 5010GN6-30 are:
Flame Rated
Flame Retardant

| General Information | | | |
|---|---|---|---|
| UL YellowCard | E53664-100763717 | | |
| Filler / Reinforcement | Glass Fiber,30% Filler by Weight | | |
| Additive | Flame Retardant | | |
| Features | Flame Retardant<br>Low to No Outgassing | | |
| Forms | Pellets | | |
| Processing Method | Injection Molding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Density | 1.66 | g/cm³ | ISO 1183 |
| Molding Shrinkage | | | |
| Across Flow : 2.00 mm | 1.1 | % | |
| Flow : 2.00 mm | 0.40 | % | |
| Water Absorption (Saturation, 23°C) | 0.070 | % | |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 11000 | MPa | ISO 527-2 |
| Tensile Stress (Break) | 142 | MPa | ISO 527-2 |
| Tensile Strain (Break) | 3.0 | % | ISO 527-2 |
| Flexural Modulus | 10500 | MPa | ISO 178 |
| Flexural Stress | 215 | MPa | ISO 178 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength (23°C) | 10 | kJ/m² | ISO 179 |
| Charpy Unnotched Impact Strength (23°C) | 55 | kJ/m² | ISO 179 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Heat Deflection Temperature | | | |
| 0.45 MPa, Unannealed | > 220 | °C | ISO 75-2/B |
| 1.8 MPa, Unannealed | 206 | °C | ISO 75-2/A |
| Melting Temperature | 224 | °C | ISO 11357-3 |
| CLTE | | | ISO 11359-2 |
| Flow : -30 to 50°C | 2.0E-5 | cm/cm/°C | |

| | | | |
|---|---|---|---|
| Flow : -30 to 120°C | 2.0E-5 | cm/cm/°C | |
| Flow : 50 to 120°C | 2.0E-5 | cm/cm/°C | |
| Transverse : -30 to 50°C | 8.0E-5 | cm/cm/°C | |
| Transverse : -30 to 120°C | 1.1E-4 | cm/cm/°C | |
| Transverse : 50 to 120°C | 1.4E-4 | cm/cm/°C | |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | 6.0E+15 | ohms | IEC 60093 |
| Volume Resistivity | 3.0E+14 | ohms·cm | IEC 60093 |
| Electric Strength (1.00 mm) | 24 | kV/mm | IEC 60243-1 |
| Relative Permittivity (1 MHz) | 3.90 | | IEC 60250 |
| Dissipation Factor (1 MHz) | 0.014 | | IEC 60250 |
| Comparative Tracking Index (CTI) | PLC 2 | | UL 746 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | | | UL 94 |
| 0.380 mm | V-2 | | |
| 0.760 mm | V-0 | | |
| **Injection** | **Nominal Value** | **Unit** | |
| Drying Temperature | 120 | °C | |
| Drying Time | 5.0 to 8.0 | hr | |
| Rear Temperature | 235 | °C | |
| Middle Temperature | 240 | °C | |
| Front Temperature | 255 | °C | |
| Nozzle Temperature | 250 | °C | |
| Mold Temperature | 80.0 to 100 | °C | |
| Injection Pressure | 20.0 to 150 | MPa | |
| Screw Speed | 80 to 120 | rpm | |



## Recommended distributors for this material

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