

# NOVADURAN™ 5308G55

Polybutylene Terephthalate + PET

Mitsubishi Engineering-Plastics Corp

# PROSPECTOR®

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## Technical Data

### Product Description

PBT alloy GF-reinforced / HB equivalent per in-house testing, Rigidity High, GF 55%

### General

|                           |  |   |                 |
|---------------------------|--|---|-----------------|
| Material Status           | • Commercial: Active                                   |   |                 |
| Search for UL Yellow Card | • Mitsubishi Engineering-Plastics Corp<br>• NOVADURAN™ |   |                 |
| Availability              | • Africa & Middle East<br>• Asia Pacific               | • Europe<br>• Latin America                               | • North America |
| Filler / Reinforcement    | • Glass Fiber, 55% Filler by Weight                    |   |                 |
| Features                  | • High Rigidity  |   |                 |
| Uses                      | • Automotive Applications<br>• Automotive Electronics  | • Electrical/Electronic Applications<br>• General Purpose |                 |

| Physical                                   | Nominal Value Unit          | Test Method |
|--|-----------------------------|-------------|
| Density                                    | 1.81 g/cm <sup>3</sup>      | ISO 1183    |
| Melt Volume-Flow Rate (MVR) (265°C/5.0 kg) | 9.00 cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage                          |                             | ISO 294-4   |
| Across Flow                                | 0.60 %                      |             |
| Flow                                       | 0.20 %                      |             |
| Water Absorption (Saturation, 23°C)        | 0.070 %                     | ISO 62      |

| Mechanical                    | Nominal Value Unit | Test Method |
|-------------------------------|--------------------|-------------|
| Tensile Modulus               | 21100 MPa          | ISO 527-2/1 |
| Tensile Stress (Break)        | 171 MPa            | ISO 527-2/5 |
| Tensile Strain (Break)        | 2.0 %              | ISO 527-2/5 |
| Flexural Modulus <sup>2</sup> | 17900 MPa          | ISO 178     |
| Flexural Stress <sup>2</sup>  | 260 MPa            | ISO 178     |

| Impact                                  | Nominal Value Unit   | Test Method |
|---|----------------------|-------------|
| Charpy Notched Impact Strength (23°C)   | 10 kJ/m <sup>2</sup> | ISO 179     |
| Charpy Unnotched Impact Strength (23°C) | 60 kJ/m <sup>2</sup> | ISO 179     |

| Thermal                     | Nominal Value Unit | Test Method |
|-----------------------------|--------------------|-------------|
| Heat Deflection Temperature |                    |             |
| 0.45 MPa, Annealed          | > 220 °C           | ISO 75-2/B  |
| 1.8 MPa, Annealed           | 210 °C             | ISO 75-2/A  |
| Melting Temperature         | 255 °C             | ISO 11357-3 |

| Electrical                  | Nominal Value Unit | Test Method |
|-----------------------------|--------------------|-------------|
| Surface Resistivity         | 5.0E+16 ohms       | IEC 60093   |
| Volume Resistivity          | 2.0E+16 ohms·cm    | IEC 60093   |
| Dielectric Constant (1 MHz) | 3.40               | IEC 60250   |
| Dissipation Factor (1 MHz)  | 0.016              | IEC 60250   |

| 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 °C             |
| Middle Temperature                 | 245 °C             |
| Front Temperature                  | 255 °C             |
| Nozzle Temperature                 | 255 °C             |
| Mold Temperature                   | 80 to 100 °C       |
| Injection Pressure                 | 20.0 to 150 MPa    |
| Injection Rate                     | Moderate-Fast      |



| Injection   | Nominal Value Unit |
|-------------|--------------------|
| Screw Speed | 80 to 120 rpm      |

**Notes**

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

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



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### Where to Buy

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#### Supplier

##### Mitsubishi Engineering-Plastics Corp

, Japan

**Telephone:** +81-463-21-8610

**Web:** <http://www.m-ep.co.jp/>

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#### Distributor

##### Chase Plastic Services, Inc.

*Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here: <http://www.chaseplastics.com/contact/locations>*

**Telephone:** 800-232-4273

**Web:** <http://www.chaseplastics.com/>

**Availability:** North America

##### Nexeo Solutions - Europe

*Nexeo Solutions is a Pan European distribution company. Contact Nexeo for availability of individual products by country.*

**Telephone:** +34-93-480-9125

**Web:** <http://www.nexeosolutions.com/>

**Availability:** Belgium, Bulgaria, Czech Republic, France, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain, United Kingdom

##### The Materials Group

**Telephone:** 616-863-6046

**Web:** <http://thematerialsgroup.com/>

**Availability:** North America

