

**NOVADURAN 5010G45**

PBT-GF45

Mitsubishi Engineering-Plastics Corporation

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	15	cm <sup>3</sup> /10min	ISO 1133
Temperature	250	°C	-
Load	5	kg	-
Molding shrinkage, parallel	0.4	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	15000	MPa	ISO 527
Stress at break	165	MPa	ISO 527
Strain at break	2	%	ISO 527
Flexural modulus, 23°C	14500	MPa	ISO 178
Flexural strength	260	MPa	ISO 178
Charpy impact strength, +23°C	60	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	14	kJ/m <sup>2</sup>	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Melting temperature, 10°C/min	224	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	209	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	220	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	15	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	100	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	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	-	-

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Relative permittivity, 1MHz	3.4	-	IEC 62631-2-1
Dissipation factor, 1MHz	160	E-4	IEC 62631-2-1
Volume resistivity	5E14	Ohm*m	IEC 62631-3-1
Surface resistivity	5E16	Ohm	IEC 62631-3-2
Electric strength	28	kV/mm	IEC 60243-1

Other properties	Value	Unit	Test Standard
Water absorption	0.06	%	Sim. to ISO 62
Density	1670	kg/m <sup>3</sup>	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	5 - 8	h	-
Mold temperature	80 - 100	°C	-
Zone 1	240	°C	-
Zone 2	245	°C	-
Zone 3	255	°C	-
Nozzle temperature	255	°C	-
Screw speed	80 - 120	rpm	-
Injection pressure	20 - 150	MPa	-

**Characteristics**

## **NOVADURAN 5010G45**

PBT-GF45

Mitsubishi Engineering-Plastics Corporation

### **Processing**

Injection Molding

### **Applications**

Automotive, Electrical and Electronical, General Purpose

### **Regional Availability**

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