NOVADURAN 5010GP20

PBT-X40 — Mitsubishi Engineering-Plastics Corporation

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**23**	cm³/10min	ISO 1133
Temperature	**250**	°C	-
Load	**5**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**9000**	MPa	ISO 527
Stress at break	**99**	MPa	ISO 527
Strain at break	**2**	%	ISO 527
Flexural modulus, 23°C	**8900**	MPa	ISO 178
Flexural strength	**150**	MPa	ISO 178
Charpy impact strength, +23°C	**32**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**8**	kJ/m²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	**224**	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	**192**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**218**	°C	ISO 75-1/-2
Burning behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	**3.6**	-	IEC 62631-2-1
Dissipation factor, 1MHz	**120**	E-4	IEC 62631-2-1
Volume resistivity	**1E14**	Ohm*m	IEC 62631-3-1
Surface resistivity	**1E15**	Ohm	IEC 62631-3-2
Electric strength	**43**	kV/mm	IEC 60243-1

Other properties	Value	Unit	Test Standard
Water absorption	**0.07**	%	Sim. to ISO 62
Density	**1490**	kg/m³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**5 - 8**	h	-
Mold temperature	**60 - 100**	°C	-
Zone 1	**250 - 270**	°C	-
Zone 2	**250 - 270**	°C	-
Zone 3	**250 - 270**	°C	-
Nozzle temperature	**270**	°C	-
Screw speed	**80 - 120**	rpm	-
Injection pressure	**20 - 150**	MPa	-

Characteristics

Processing

Injection Molding

Regional Availability

Asia Pacific

Applications

Automotive, Electrical and Electronical, General Purpose