NOVADURAN 5010R5

PBT — Mitsubishi Engineering-Plastics Corporation

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**21**	cm³/10min	ISO 1133
Temperature	**250**	°C	-
Load	**2.16**	kg	-
Molding shrinkage, parallel	**1.9**	%	ISO 294-4, 2577
Molding shrinkage, normal	**1.8**	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2550**	MPa	ISO 527
Yield stress	**55**	MPa	ISO 527
Yield strain	**4.4**	%	ISO 527
Strain at break	**170**	%	ISO 527
Flexural modulus, 23°C	**2300**	MPa	ISO 178
Flexural strength	**80**	MPa	ISO 178
Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**6**	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	**67**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**165**	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	**120**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**120**	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**1.6**	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
ISO Data			
Relative permittivity, 1MHz	**3.3**	-	IEC 62631-2-1
Dissipation factor, 1MHz	**220**	E-4	IEC 62631-2-1
Volume resistivity	**4E14**	Ohm*m	IEC 62631-3-1
Surface resistivity	**3E15**	Ohm	IEC 62631-3-2
Electric strength	**22**	kV/mm	IEC 60243-1
Comparative tracking index	**600**	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	**0.1**	%	Sim. to ISO 62
Density	**1310**	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 - 80**	°C	-
Zone 1	**235**	°C	-
Zone 2	**240**	°C	-
Zone 3	**250**	°C	-
Nozzle temperature	**245**	°C	-
Screw speed	**80 - 150**	rpm	-
Injection pressure	**20 - 150**	MPa	-

Characteristics

Processing
Injection Molding

Applications
Automotive, Electrical and Electronical, General Purpose

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