

NOVADURAN 5010N1

PBT

Mitsubishi Engineering-Plastics Corporation

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	20	cm ³ /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	2970	MPa	ISO 527
Yield stress	63	MPa	ISO 527
Yield strain	6	%	ISO 527
Strain at break	20	%	ISO 527
Flexural modulus, 23°C	2780	MPa	ISO 178
Flexural strength	96	MPa	ISO 178
Charpy impact strength, +23°C	110	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	2	kJ/m ²	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.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.7	mm	-
Yellow Card available	yes	-	-

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3.2	-	IEC 62631-2-1
Dissipation factor, 1MHz	200	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	21	kV/mm	IEC 60243-1
Comparative tracking index	212	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	0.08	%	Sim. to ISO 62
Density	1430	kg/m ³	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 - 120	rpm	-
Injection pressure	20 - 150	MPa	-

Characteristics

Processing

Injection Molding

Special Characteristics

Flame retardant

Applications

Automotive, Electrical and Electronical, General Purpose

Regional Availability

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