

NOVADURAN 5010CTN33

PBT-X33

Mitsubishi Engineering-Plastics Corporation

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	16	cm ³ /10min	ISO 1133
Temperature	250	°C	-
Load	5	kg	-
Molding shrinkage, parallel	0.6	%	ISO 294-4, 2577
Molding shrinkage, normal	1.0	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	9100	MPa	ISO 527
Stress at break	90	MPa	ISO 527
Strain at break	2.3	%	ISO 527
Flexural modulus, 23°C	8700	MPa	ISO 178
Flexural strength	145	MPa	ISO 178
Charpy impact strength, +23°C	35	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	5	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	205	°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	25	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	96	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	V-0	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	3.9	-	IEC 62631-2-1
Dissipation factor, 1MHz	160	E-4	IEC 62631-2-1
Volume resistivity	2E14	Ohm*m	IEC 62631-3-1
Surface resistivity	1E16	Ohm	IEC 62631-3-2
Electric strength	25	kV/mm	IEC 60243-1
Comparative tracking index	500	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	0.07	%	Sim. to ISO 62
Density	1710	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 - 100	°C	-
Zone 1	250 - 270	°C	-
Zone 2	250 - 270	°C	-
Zone 3	250 - 270	°C	-
Nozzle temperature	270	°C	-
Screw speed	80 - 150	rpm	-
Injection pressure	20 - 150	MPa	-

Characteristics

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Processing

Injection Molding

Special Characteristics

Flame retardant

Features

Low Warpage

Applications

Automotive, Electrical and Electronical, General Purpose

Regional Availability

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