NOVADURAN 5308F20

PBT-X20 — Mitsubishi Engineering-Plastics Corporation

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**55**	cm³/10min	ISO 1133
Temperature	**265**	°C	-
Load	**2.16**	kg	-
Molding shrinkage, parallel	**1.4**	%	ISO 294-4, 2577
Molding shrinkage, normal	**1.6**	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**5200**	MPa	ISO 527
Stress at break	**58**	MPa	ISO 527
Strain at break	**2.3**	%	ISO 527
Flexural modulus, 23°C	**5000**	MPa	ISO 178
Flexural strength	**100**	MPa	ISO 178
Charpy impact strength, +23°C	**25**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**2**	kJ/m²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**115**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**195**	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	**63**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**80**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**HB**	class	IEC 60695-11-10
Thickness tested	**0.8**	mm	-

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	**3.3**	-	IEC 62631-2-1
Dissipation factor, 1MHz	**140**	E-4	IEC 62631-2-1
Volume resistivity	**3E14**	Ohm*m	IEC 62631-3-1
Surface resistivity	**3E15**	Ohm	IEC 62631-3-2

Other properties	Value	Unit	Test Standard
Water absorption	**0.1**	%	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

Applications
Automotive, Electrical and Electronical, General Purpose

Features
Low Warpage

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