

Pocan® BFN2502 000000
PBT FR(40)

Envalior

Injection Molding, Unreinforced, Flame Retardant (halogen free)

ISO 1043 PBT FR(40)

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	20	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	2.16	kg	-
Molding shrinkage, parallel	2.3	%	ISO 294-4, 2577
Molding shrinkage, normal	2.2	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2900	MPa	ISO 527
Yield stress	40	MPa	ISO 527
Yield strain	2.6	%	ISO 527
Nominal strain at break	5.5	%	ISO 527
Impact Strength (Charpy), +23°C	22	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	22	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	10	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	10	kJ/m ²	ISO 179/1eA
Flexural Modulus (23°C)	3000	MPa	ISO 178
Flexural strength	75	MPa	ISO 178
Impact Strength (Izod), 23°C	18	kJ/m ²	ISO 180/1U

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	220	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	73	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	166	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	100	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	110	E-6/K	ISO 11359-1/-2
Burning Behav. at thickness h	V-0	class	UL 94
Thickness tested	0.4	mm	-
Burning Behav. 5V at Thickness h	5VA	class	IEC 60695-11-20
Thickness tested	3.0	mm	-
Oxygen index	36	%	ISO 4589-1/-2
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.4	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	0.75	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	1.5	mm	-
Glow Wire Ignition Temperature	750	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.4	mm	-
Glow Wire Ignition Temperature	725	°C	IEC 60695-2-13
GWIT - thickness tested (2)	0.75	mm	-
Glow Wire Ignition Temperature	725	°C	IEC 60695-2-13
GWIT - thickness tested (3)	1.5	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.4	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.3	-	IEC 62631-2-1
Dissipation Factor, 100Hz	69	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	59	E-4	IEC 62631-2-1
Volume Resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	>1E15	Ohm	IEC 62631-3-2
Electric Strength	31	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

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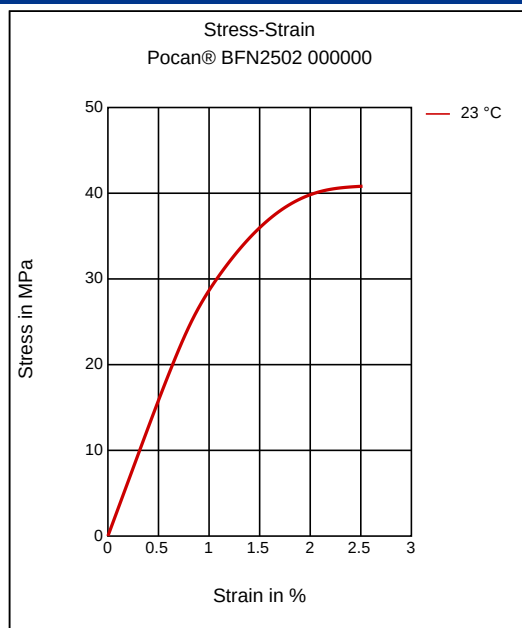
Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1330	kg/m³	ISO 1183
Bulk density	800	kg/m³	-

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

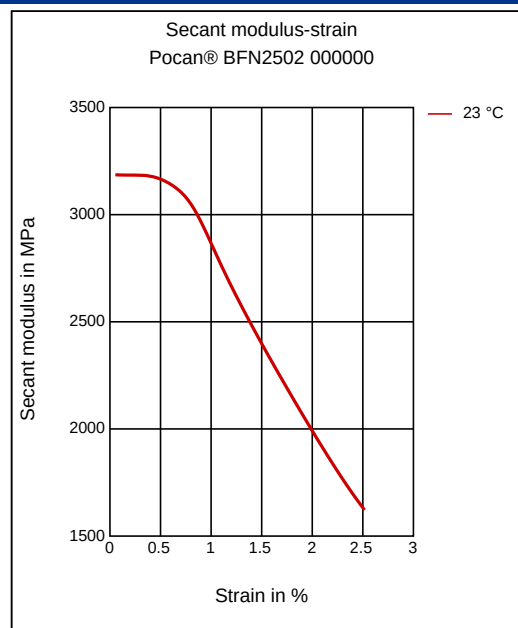
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	250 - 270	°C	-
Mold temperature	70 - 90	°C	-

Diagrams

Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Residual moisture content: 0.00 - 0.02 %

Drying temperature circulating air dryer: 120 °C

Drying time circulating air dryer: 4 - 8 h

PROCESSING

Melt temperature (Tmin - Tmax): 250 - 270 °C

admissible residence time at Tmax: <5 min

Mold temperature: 70 - 90 °C

Special Characteristics

Flame retardant, Halogen-free, Heat aging stabilized