

Pocan® BFN4221 000000

PBT-GF20 FR(40+30)

Envalior

Injection Molding, 20% Glass Reinforced, Flame Retardant (halogen free)

ISO 1043 PBT-GF20 FR(40+30)

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	15	cm ³ /10min	ISO 1133
Temperature	260	°C	-
Load	2.16	kg	-
Molding shrinkage, parallel	0.7	%	ISO 294-4, 2577
Molding shrinkage, normal	1.2	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	8500	MPa	ISO 527
Stress at Break	90	MPa	ISO 527
Strain at Break	2.4	%	ISO 527
Impact Strength (Charpy), +23°C	35	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	30	kJ/m ²	ISO 179/1eU
Flexural Modulus (23°C)	8300	MPa	ISO 178
Flexural strength	140	MPa	ISO 178
Impact Strength (Izod), 23°C	30	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)	207	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	222	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	30	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	90	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	V-0	class	UL 94
Burning Behav. 5V at Thickness h	5VA	class	IEC 60695-11-20
Thickness tested	1.5	mm	-
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	775	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.4	mm	-
Glow Wire Ignition Temperature	775	°C	IEC 60695-2-13
GWIT - thickness tested (2)	0.75	mm	-
Glow Wire Ignition Temperature	800	°C	IEC 60695-2-13
GWIT - thickness tested (3)	1.5	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Volume Resistivity	1E13	Ohm*m	IEC 62631-3-1
Electric Strength	33	kV/mm	IEC 60243-1
Comparative tracking index	525	-	IEC 60112
Comparative tracking index	600	-	UL 746A

Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1470	kg/m ³	ISO 1183
Bulk density	800	kg/m ³	-

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

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Injection Molding, mold temperature

80

°C

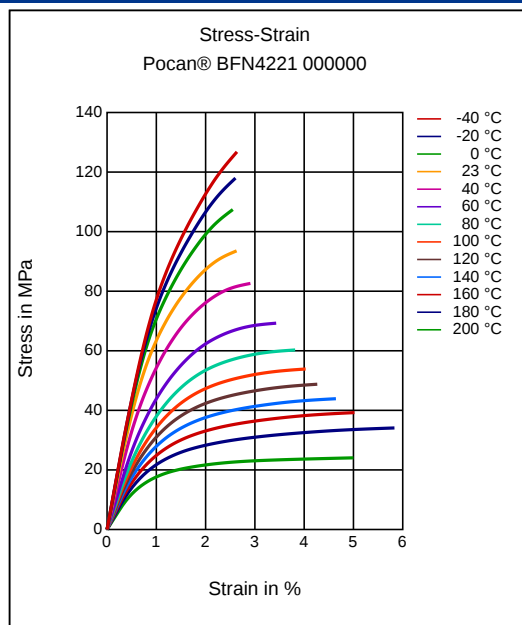
ISO 294

Processing Recommendation Injection Molding

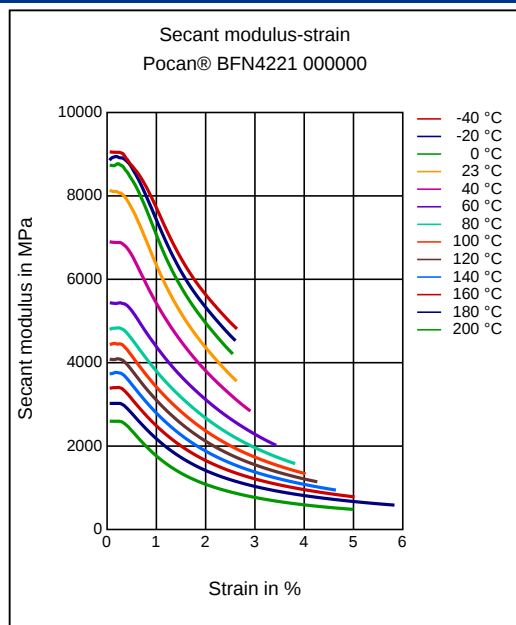
	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	4 - 8	h	-
Melt temperature	250 - 270	°C	-
Mold temperature	70 - 90	°C	-

Diagrams

Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Flame retardant, Halogen-free, Heat aging stabilized

Injection Molding

PREPROCESSING

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