

Pocan[®] BFN4221Z

PBT-I-GF20 FR(40)

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

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	VALUE		
Melt volume-flow rate	13	cm ³ /10min	ISO 1133
Temperature	260	°C	ISO 1133
Load	5	kg	ISO 1133
Molding shrinkage (normal)	1.1	%	ISO 294-4
Molding shrinkage (parallel)	0.6	%	ISO 294-4
MECHANICAL PROPERTIES	VALUE		
Tensile modulus	7300	MPa	ISO 527-1/-2
Stress at break	85	MPa	ISO 527-1/-2
Strain at break	2.9	%	ISO 527-1/-2
Flexural modulus	7400	MPa	ISO 178
Flexural strength	145	MPa	ISO 178
Flexural strain at flexural strength	3.2	%	ISO 178-A
Charpy impact strength (+23°C)	45	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	45	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	7	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	6	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES	VALUE		
Melting temperature (10°C/min)	220	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	193	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.3	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.2	E-4/°C	ISO 11359-1/-2

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Burning Behav. at 0.75 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	0.75	mm	IEC 60695-11-10
Burning Behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	3	mm	IEC 60695-11-10
Glow Wire Flammability Index GWFI	960	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.4	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	0.75	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	775	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.4	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	775	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	0.75	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	750	°C	IEC 60695-2-13
GWIT (Thickness (3) tested)	1.5	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	750	°C	IEC 60695-2-13
GWIT (Thickness (4) tested)	3	mm	IEC 60695-2-13

ELECTRICAL PROPERTIES	VALUE		
Volume resistivity	9.7E13	Ohm*m	IEC 62631-3-1
Surface resistivity	3.8E16	Ohm	IEC 62631-3-2
Electric strength	30	kV/mm	IEC 60243-1
Comparative tracking index (PLC)	0	class	UL 746A

OTHER PROPERTIES	VALUE		
Density	1460	kg/m³	ISO 1183

PROCESSING RECOMMENDATIONS	VALUE		
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Drying temperature circulating air dryer	120	°C	
Drying time circulating air dryer	4–8	h	
Residual moisture content	0.00–0.02	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	250–265	°C	
Mold temperature	70–90	°C	
admissible residence time at Tmax	<5	min	