

Pocan[®] BFN2502

PBT FR(40)

Injection Molding, Unreinforced, Flame Retardant (halogen free)

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<i>RHEOLOGICAL PROPERTIES</i>			
	<i>VALUE</i>		
Melt volume–flow rate	20	cm ³ /10min	ISO 1133
Temperature	260	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage (normal)	2.2	%	ISO 294–4
Molding shrinkage (parallel)	2.3	%	ISO 294–4
<i>MECHANICAL PROPERTIES</i>			
	<i>VALUE</i>		
Tensile modulus	2900	MPa	ISO 527–1/–2
Yield stress	40	MPa	ISO 527–1/–2
Yield strain	2.6	%	ISO 527–1/–2
Nominal strain at break	5.5	%	ISO 527–1/–2
Flexural modulus	3000	MPa	ISO 178
Flexural strength	75	MPa	ISO 178
Flexural strain at flexural strength	5.2	%	ISO 178–A
Charpy impact strength (+23°C)	22	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	22	kJ/m ²	ISO 179/1eU
Izod impact strength (+23°C)	18	kJ/m ²	ISO 180/1U
Izod impact strength (–30°C)	18	kJ/m ²	ISO 180–1U
<i>THERMAL PROPERTIES</i>			
	<i>VALUE</i>		
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

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Coeff. of linear therm. expansion (parallel)	1	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.1	E-4/°C	ISO 11359-1/-2
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
Oxygen index	36	%	ISO 4589-1/-2
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	750	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.4	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	725	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	0.75	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	725	°C	IEC 60695-2-13
GWIT (Thickness (3) tested)	1.5	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	725	°C	IEC 60695-2-13
GWIT (Thickness (4) tested)	3	mm	IEC 60695-2-13

ELECTRICAL PROPERTIES

VALUE

Relative permittivity (100Hz)	3.4	–	IEC 62631-2-1
Relative permittivity (1 MHz)	3.3	–	IEC 62631-2-1
Dissipation factor (100 Hz)	69	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	59	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Electric strength	31	kV/mm	IEC 60243-1
Comparative tracking index	600	V	IEC 60112
Comparative tracking index (PLC)	0	class	UL 746A
 <i>OTHER PROPERTIES</i>			
	<i>VALUE</i>		
Density	1330	kg/m ³	ISO 1183
 <i>PROCESSING RECOMMENDATIONS</i>			
	<i>VALUE</i>		
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	