Property Data

Envalior
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Pocan® BFN4221

PBT-GF20 FR(40+30)

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

Print Date: 2025-11-27

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	**VALUE**		
Melt volume-flow rate	15	cm³/10min	ISO 1133
Temperature	260	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage (normal)	1.2	%	ISO 294-4
Molding shrinkage (parallel)	0.7	%	ISO 294-4
MECHANICAL PROPERTIES	**VALUE**		
Tensile modulus	8500	MPa	ISO 527-1/-2
Stress at break	90	MPa	ISO 527-1/-2
Strain at break	2.4	%	ISO 527-1/-2
Flexural modulus	8300	MPa	ISO 178
Flexural strength	140	MPa	ISO 178
Flexural strain at flexural strength	2.4	%	ISO 178-A
Charpy impact strength (+23°C)	35	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	30	kJ/m²	ISO 179/1eU
Izod impact strength (+23°C)	30	kJ/m²	ISO 180/1U
Izod impact strength (-30°C)	25	kJ/m²	ISO 180-1U
THERMAL PROPERTIES	**VALUE**		
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)	0.3	E-4/°C	ISO 11359-1/-2

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Coeff. of linear therm. expansion (normal)	0.9	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
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	800	°C	IEC 60695–2–13
GWIT (Thickness (3) tested)	1.5	mm	IEC 60695–2–13
Glow Wire Ignition Temperature GWIT	800	°C	IEC 60695–2–13
GWIT (Thickness (4) tested)	3	mm	IEC 60695–2–13

ELECTRICAL PROPERTIES	VALUE		
Volume resistivity	1E13	Ohm*m	IEC 62631–3–1
Electric strength	33	kV/mm	IEC 60243–1
Comparative tracking index	525	V	IEC 60112
Comparative tracking index (PLC)	0	class	UL 746A

OTHER PROPERTIES	VALUE		
Density	1470	kg/m³	ISO 1183

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
PROCESSING RECOMMENDATIONS	**VALUE**		
Drying temperature circulating air dryer	120	°C	
Drying time circulating air dryer	4–8	h	
Melt temperature (Tmin – Tmax)	250–265	°C	
Mold temperature	70–90	°C	
admissible residence time at Tmax	<5	min	

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