Property Data

Envalior
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Pocan® B4225

PBT-GF20 FR(17)

Injection Molding, 20% Glass Fiber Reinforced, Flame Retardant

Print Date: 2026-01-14

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	**VALUE**		
Melt volume-flow rate (MVR)	18	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)	0.5	%	ISO 294-4
MECHANICAL PROPERTIES	**VALUE**		
Tensile modulus	7500	MPa	ISO 527-1/-2
Stress at break	125	MPa	ISO 527-1/-2
Strain at break	2.8	%	ISO 527-1/-2
Flexural modulus	7200	MPa	ISO 178
Flexural strength	185	MPa	ISO 178
Flexural strain at flexural strength	3.2	%	ISO 178-A
Charpy impact strength (+23°C)	45	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	40	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	6	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	6	kJ/m²	ISO 179/1eA
Izod impact strength (+23°C)	40	kJ/m²	ISO 180/1U
Izod impact strength (-30°C)	35	kJ/m²	ISO 180-1U
THERMAL PROPERTIES	**VALUE**		
Melting temperature (10°C/min)	225	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	200	°C	ISO 75-1/-2

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Temp. of deflection under load (0.45 MPa)	220	°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	E–4/°C	ISO 11359–1/–2
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	32	%	ISO 4589–1/–2
Glow Wire Flammability Index GWFI	960	°C	IEC 60695–2–12
GWFI (Thickness (1) tested)	0.75	mm	IEC 60695–2–12
Glow Wire Flammability Index GWFI	960	°C	IEC 60695–2–12
GWFI (Thickness (2) tested)	1.5	mm	IEC 60695–2–12
Glow Wire Ignition Temperature GWIT	700	°C	IEC 60695–2–13
GWIT (Thickness (1) tested)	0.75	mm	IEC 60695–2–13
Glow Wire Ignition Temperature GWIT	700	°C	IEC 60695–2–13
GWIT (Thickness (2) tested)	1.5	mm	IEC 60695–2–13
Glow Wire Ignition Temperature GWIT	700	°C	IEC 60695–2–13
GWIT (Thickness (3) tested)	3	mm	IEC 60695–2–13

ELECTRICAL PROPERTIES	VALUE		
Relative permittivity (100Hz)	3.8	–	IEC 62631–2–1
Relative permittivity (1 MHz)	3.6	–	IEC 62631–2–1
Dissipation factor (100 Hz)	40	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	180	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	29	kV/mm	IEC 60243–1
Comparative tracking index (PLC)	3	class	UL 746A

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
OTHER PROPERTIES	**VALUE**		
Water absorption	0.3	%	Sim. to ISO 62
Humidity absorption	0.1	%	Sim. to ISO 62
Density	1570	kg/m³	ISO 1183
PROCESSING RECOMMENDATIONS	**VALUE**		
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)	240–260	°C	
Mold temperature	80–100	°C	

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