Property Data

Envalior
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Pocan® BF4222

PBT-GF20 FR(17)

20% Glass Fiber Reinforced, Injection Molding, Flame Retardant

Print Date: 2025-10-04

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	**VALUE**		
Melt volume-flow rate	12	cm³/10min	ISO 1133
Temperature	260	°C	ISO 1133
Load	2.16	kg	ISO 1133
Molding shrinkage (normal)	1.1	%	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	115	MPa	ISO 527-1/-2
Strain at break	2.6	%	ISO 527-1/-2
Flexural modulus	7900	MPa	ISO 178
Flexural strength	190	MPa	ISO 178
Flexural strain at flexural strength	3.3	%	ISO 178-A
Charpy impact strength (+23°C)	50	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	45	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	5	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	5	kJ/m²	ISO 179/1eA
Izod impact strength (+23°C)	45	kJ/m²	ISO 180/1U
Izod impact strength (-30°C)	40	kJ/m²	ISO 180-1U
THERMAL PROPERTIES	**VALUE**		
Melting temperature (10°C/min)	222	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	195	°C	ISO 75-1/-2

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Temp. of deflection under load (0.45 MPa)	215	°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 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	28.9	%	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	800	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.75	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	800	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	800	°C	IEC 60695-2-13
GWIT (Thickness (3) tested)	3	mm	IEC 60695-2-13

ELECTRICAL PROPERTIES	VALUE		
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	31	kV/mm	IEC 60243-1
Comparative tracking index	225	V	IEC 60112
Comparative tracking index (PLC)	2	class	UL 746A

OTHER PROPERTIES	VALUE

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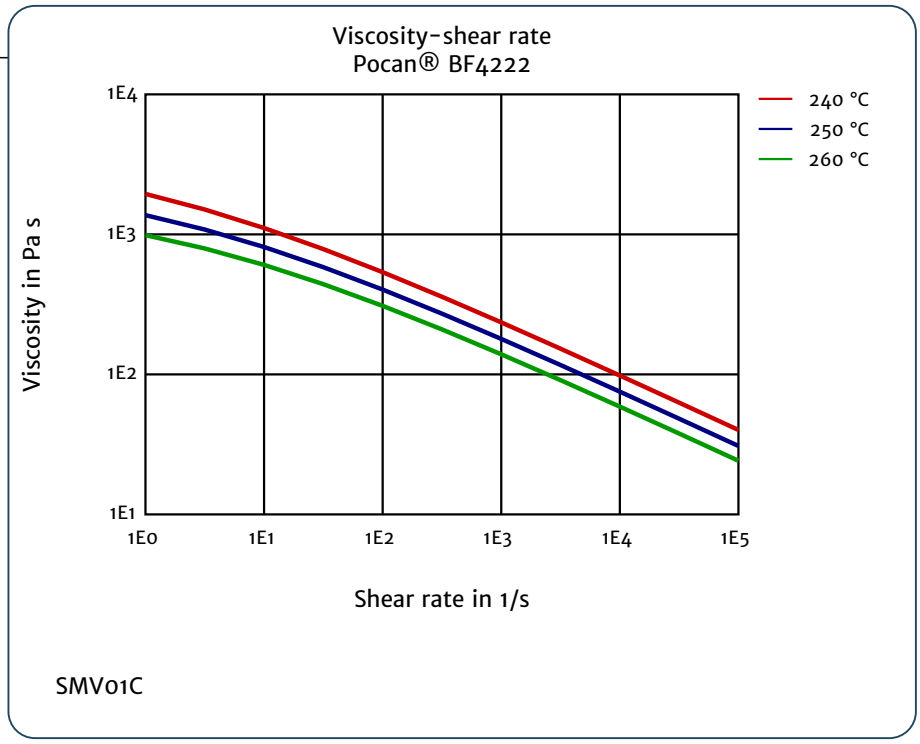
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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Water absorption	0.4	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1570	kg/m³	ISO 1183

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	

Viscosity–shear rate



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