

Pocan[®] S1517

PBT—I

Injection Molding, Unreinforced, Extrusion, Improved Impact

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	VALUE		
Melt volume–flow rate	27	cm ³ /10min	ISO 1133
Temperature	260	°C	ISO 1133
Load	5	kg	ISO 1133
Molding shrinkage (normal)	2	%	ISO 294–4
Molding shrinkage (parallel)	2	%	ISO 294–4
MECHANICAL PROPERTIES			
	VALUE		
Tensile modulus	1900	MPa	ISO 527–1/–2
Yield stress	45	MPa	ISO 527–1/–2
Yield strain	5.1	%	ISO 527–1/–2
Nominal strain at break	>50	%	ISO 527–1/–2
Flexural modulus	2000	MPa	ISO 178
Flexural strength	65	MPa	ISO 178
Flexural strain at flexural strength	5.8	%	ISO 178–A
Charpy impact strength (+23°C)	N	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	50	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (–30°C)	13	kJ/m ²	ISO 179/1eA
Izod impact strength (+23°C)	N	kJ/m ²	ISO 180/1U
Izod impact strength (–30°C)	N	kJ/m ²	ISO 180–1U
THERMAL PROPERTIES			
	VALUE		
Melting temperature (10°C/min)	225	°C	ISO 11357–1/–3

Property Data

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Temp. of deflection under load (1.80 MPa)	55	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	115	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	1.3	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1.3	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn. Thickness tested	HB 1.5	class mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn. Thickness tested	HB 3	class mm	IEC 60695-11-10
Oxygen index	22	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI GWFI (Thickness (1) tested)	650 2	°C mm	IEC 60695-2-12

ELECTRICAL PROPERTIES	VALUE		
Relative permittivity (100Hz)	3.2	—	IEC 62631-2-1
Relative permittivity (1 MHz)	3.1	—	IEC 62631-2-1
Dissipation factor (100 Hz)	20	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	190	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	30	kV/mm	IEC 60243-1
Comparative tracking index	600	V	IEC 60112

OTHER PROPERTIES	VALUE		
Water absorption	0.4	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1240	kg/m³	ISO 1183

PROCESSING RECOMMENDATIONS	VALUE		
Drying temperature circulating air dryer	120	°C	

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Drying time circulating air dryer	4–8	h	
Residual moisture content	0.00–0.02	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	250–270	°C	
Mold temperature	80–100	°C	

Viscosity–shear rate

