

Pocan[®] S7020 S1

PBT—I FR(17)

Injection Molding, Unreinforced, Flame Retardant, Improved Impact

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	VALUE		
Melt volume–flow rate	50	cm ³ /10min	ISO 1133
Temperature	270	°C	ISO 1133
Load	5	kg	ISO 1133
Molding shrinkage (normal)	1.8	%	ISO 294–4
Molding shrinkage (parallel)	1.8	%	ISO 294–4
MECHANICAL PROPERTIES	VALUE		
Tensile modulus	2300	MPa	ISO 527–1/–2
Yield stress	45	MPa	ISO 527–1/–2
Yield strain	4.5	%	ISO 527–1/–2
Flexural modulus	2300	MPa	ISO 178
Flexural strength	75	MPa	ISO 178
Flexural strain at flexural strength	5.3	%	ISO 178–A
Charpy impact strength (+23°C)	N	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	105	kJ/m ²	ISO 179/1eU
Izod impact strength (+23°C)	N	kJ/m ²	ISO 180/1U
Izod impact strength (–30°C)	65	kJ/m ²	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)	65	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	125	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	1.1	E–4/°C	ISO 11359–1/–2

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Coeff. of linear therm. expansion (normal)	1.1	E-4/°C	ISO 11359-1/-2
Burning Behav. at 0.75 mm nom. thickn.	V-2	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	30	%	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

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)	240	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	23	kV/mm	IEC 60243-1
Comparative tracking index	600	V	IEC 60112
Comparative tracking index (PLC)	0	class	UL 746A

OTHER PROPERTIES	VALUE		
Water absorption	0.6	%	Sim. to ISO 62
Humidity absorption	0.2	%	Sim. to ISO 62
Density	1380	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)	240–260	°C	
Mold temperature	80–100	°C	