

Product Texts

Injection Molding, 17% White Pigments, Flame Retardant (halogen free), Low Warpage

ISO 1043 PBT-MD17 FR

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	2.2	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	2.0	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	4150	MPa	ISO 527
^[C] Stress at break	40	MPa	ISO 527
^[C] Strain at break	1.8	%	ISO 527
Flexural modulus, 23°C	4200	MPa	ISO 178
Flexural strength	70	MPa	ISO 178
^[C] Charpy impact strength, +23°C	17	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	17	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	10	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	10	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	15	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	10	kJ/m ²	ISO 180/1A
Izod notched impact strength	10	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
Ball indentation hardness	160	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	220	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	100	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	180	°C	ISO 75-1/-2
Vicat softening temperature, B	190	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	80	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	90	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
^[C] Burning Behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	3.0	mm	-
^[C] Oxygen index	41	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.4	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	0.75	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	1.5	mm	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Electric strength	28	kV/mm	IEC 60243-1
^[C] Comparative tracking index	400	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.4	%	Sim. to ISO 62
^[C] Humidity absorption	0.2	%	Sim. to ISO 62
^[C] Density	1520	kg/m ³	ISO 1183
Bulk density	800	kg/m ³	-

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120	°C	-
Pre-drying - Time	4 - 8	h	-
Processing humidity	≤0.02	%	-
Melt temperature	250 - 270	°C	-
Mold temperature	70 - 90	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Flame retardant, Halogen-free, Heat stabilized or stable to heat

Features

Light Reflecting, Low Warpage

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding

PREPROCESSING

Residual moisture content: 0.00 - 0.02 %

Drying temperature circulating air dryer: 120 °C

Drying time circulating air dryer: 4 - 8 h

PROCESSING

Melt temperature (Tmin - Tmax): 250 - 270 °C

admissible residence time at Tmax: <5 min

Mold temperature: 70 - 90 °C