Durethan® BC30 000000

PA6-I — Envalior

Product Texts

Injection Molding, Unreinforced, Improved Impact

ISO 1043 PA6-I

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**36 / ***	cm³/10min	ISO 1133
Temperature	**270 / ***	°C	-
Load	**2.16 / ***	kg	-
[C] Molding shrinkage, parallel	**1.6 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.8 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**2800 / 1200**	MPa	ISO 527
[C] Yield stress	**65 / 40**	MPa	ISO 527
[C] Yield strain	**4 / 20**	%	ISO 527
[C] Nominal strain at break	**- / >50**	%	ISO 527
[C] Charpy impact strength, +23°C	**N / N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N / N**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**10 / 50**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**- / 10**	kJ/m²	ISO 179/1eA
[C] Puncture - maximum force, +23°C	**4340 / 470**	N	ISO 6603-2
[C] Puncture - maximum force, -30°C	**5870 / 940**	N	ISO 6603-2
[C] Puncture energy, +23°C	**55 / 140**	J	ISO 6603-2
[C] Puncture energy, -30°C	**65 / 20**	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**222 / ***	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	**55 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**145 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**100 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**135 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.5 / ***	mm	-
[C] Burning rate, FMVSS, Thickness 1 mm	**20.6**	mm/min	ISO 3795 (FMVSS 302)
[C] Oxygen index	**22 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**3.7 / 8.5**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.3 / 3.8**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**110 / 1650**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**190 / 660**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E13 / 1E11**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 1E14**	Ohm	IEC 62631-3-2
[C] Electric strength	**35 / 35**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**9 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**2.7 / ***	%	Sim. to ISO 62

[C] Density	**1100 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**270**	°C	ISO 294
Injection Molding, mold temperature	**80**	°C	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**80**	°C	-
Pre-drying - Time	**2 - 6**	h	-
Processing humidity	**≤0.12**	%	-
Melt temperature	**260 - 280**	°C	-
Mold temperature	**80 - 90**	°C	-

Characteristics

Processing
Injection Molding

Special Characteristics
High impact or impact modified

Delivery form
Pellets

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

Other text information

Injection molding

PREPROCESSING
Residual moisture content: 0.03 - 0.12%
Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING
Melt temperature (Tmin - Tmax): 260 - 280 °C

Mold temperature: 80 - 90 °C