Durethan® BLUEB30SF 000000

PA6 Envalior

Product Texts

Injection Molding, Unreinforced, Food Contact Quality

ISO 1043 PA6

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	**1.0 / ***	%	ISO 294-4, 2577
Molding shrinkage, normal	**1.2 / ***	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**3200 / 1000**	MPa	ISO 527
[C] Yield stress	**80 / 40**	MPa	ISO 527
[C] Yield strain	**4 / 20**	%	ISO 527
[C] Nominal strain at break	**20 / >50**	%	ISO 527
Flexural modulus, 23°C	**2900 / 850**	MPa	ISO 178
Flexural strength	**110 / 35**	MPa	ISO 178
[C] Tensile creep modulus, 1h	*** / 800**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	*** / 600**	MPa	ISO 899-1
[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	**- / 20**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**- / 10**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**N / N**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**10 / 30**	kJ/m²	ISO 180/1A
[C] Puncture - maximum force, +23°C	**5140 / -**	N	ISO 6603-2
[C] Puncture - maximum force, -30°C	**6540 / -**	N	ISO 6603-2
[C] Puncture energy, +23°C	**12 / -**	J	ISO 6603-2
[C] Puncture energy, -30°C	**10 / -**	J	ISO 6603-2
Ball indentation hardness	**140 / 50**	MPa	ISO 2039-1

[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	**160 / ***	°C	ISO 75-1/-2
Vicat softening temperature, B	**200 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**100 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**110 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**V-2 / ***	class	IEC 60695-11-10
Thickness tested	**1.5 / ***	mm	-
Burning behav. at thickness h	**V-2 / ***	class	IEC 60695-11-10
Thickness tested	**0.4 / ***	mm	-
[C] Oxygen index	**26 / ***	%	ISO 4589-1/-2
Glow Wire Flammability Index (GWFI)	**750**	°C	IEC 60695-2-12
GWFI - thickness tested (1)	**2**	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4 / 15**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.5 / 4**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**170 / 2000**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**200 / 1200**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E13 / 1E10**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 1E13**	Ohm	IEC 62631-3-2
[C] Electric strength	**30 / 30**	kV/mm	IEC 60243-1

[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	**dry / cond**	**Unit**	**Test Standard**
[C] Water absorption	**10 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**3 / ***	%	Sim. to ISO 62
[C] Density	**1140 / -**	kg/m³	ISO 1183
Bulk density	**700**	kg/m³	-

[C]: CAMPUS

Material specific properties	**dry / cond**	**Unit**	**Test Standard**
ISO Data			
[C] Viscosity number	**134 / ***	cm³/g	ISO 307, 1157, 1628

[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 - 100**	°C	-

Characteristics

Processing
Injection Molding

Certifications
Recycled Resin Content, Food contact

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 - 100 °C