Durethan® BG30XH3.0 000000

PA6-(GF+GB)30 Envalior

Product Texts

Injection Molding, 30% Glass Fiber/Glass Beads, Heat Stabilized, Low Warpage

ISO 1043 PA6-(GF+GB)30

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**0.5 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.8 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**6400 / 3100**	MPa	ISO 527
[C] Stress at break	**120 / 65**	MPa	ISO 527
[C] Strain at break	**4 / 10**	%	ISO 527
[C] Tensile creep modulus, 1h	*** / 2400**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	*** / 2000**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**45 / 75**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**40 / 45**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**- / 10**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**- / 10**	kJ/m²	ISO 179/1eA
[C] Puncture - maximum force, +23°C	**700 / 1540**	N	ISO 6603-2
[C] Puncture - maximum force, -30°C	**630 / 780**	N	ISO 6603-2
[C] Puncture energy, +23°C	**2.2 / 2.8**	J	ISO 6603-2
[C] Puncture energy, -30°C	**1.6 / 2**	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	**190 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**210 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**30 / ***	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.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.5 / ***	mm	-
[C] Burning rate, FMVSS, Thickness 1 mm	**45.6**	mm/min	ISO 3795 (FMVSS 302)

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4.5 / -**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**4 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**265 / -**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**220 / -**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E13 / -**	Ohm*m	IEC 62631-3-1
[C] Comparative tracking index	**375 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**7 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**2.2 / ***	%	Sim. to ISO 62
[C] Density	**1350 / -**	kg/m³	ISO 1183

[C]: CAMPUS

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Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Viscosity number	**140 / ***	cm³/g	ISO 307, 1157, 1628

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**280**	°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	**270 - 290**	°C	-
Mold temperature	**80 - 120**	°C	-

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Additives
Release agent

Special Characteristics
Heat stabilized or stable to heat

Features
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: 0.03 - 0.12%
Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING
Melt temperature (Tmin - Tmax): 270 - 290 °C

Mold temperature: 80 - 120 °C

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