Durethan® BKV50 000000

PA6-GF50 Envalior

Product Texts

Injection Molding, 50% Glass Reinforced

ISO 1043 PA6-GF50

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**16300 / 9800**	MPa	ISO 527
[C] Stress at break	**220 / 145**	MPa	ISO 527
[C] Strain at break	**3 / 5**	%	ISO 527
[C] Tensile creep modulus, 1h	*** / 8100**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	*** / 6600**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**100 / 110**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**85 / 85**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**20 / 25**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**15 / 15**	kJ/m²	ISO 179/1eA
[C] Puncture energy, +23°C	**9 / 14**	J	ISO 6603-2
[C] Puncture energy, -30°C	**6 / -**	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	**205 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**215 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**20 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**70 / ***	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] Oxygen index	**24 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4 / -**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**4 / 5**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**100 / -**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**150 / 1400**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E13 / 1E10**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 1E12**	Ohm	IEC 62631-3-2
[C] Electric strength	**40 / 35**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**525 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**5 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**1.5 / ***	%	Sim. to ISO 62
[C] Density	**1570 / -**	kg/m³	ISO 1183

[C]: CAMPUS

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

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