Durethan® BKV30H2.0LT 904040

PA6-GF30 Envalior

Product Texts

Injection Molding, 30% Glass Reinforced, Heat Stabilized, Laser Transparent Black

ISO 1043 PA6-GF30

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	**0.2 / ***	%	ISO 294-4, 2577
Molding shrinkage, normal	**0.8 / ***	%	ISO 294-4, 2577

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**9500 / 5900**	MPa	ISO 527
[C] Stress at break	**170 / 100**	MPa	ISO 527
[C] Strain at break	**3 / 6**	%	ISO 527
Flexural modulus, 23°C	**8300 / 5000**	MPa	ISO 178
Flexural strength	**270 / 160**	MPa	ISO 178
[C] Tensile creep modulus, 1h	*** / 5100**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	*** / 4100**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**80 / 90**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**70 / 70**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**10 / 20**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**- / 10**	kJ/m²	ISO 179/1eA
Izod notched impact strength	**10 / 10**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
[C] Puncture energy, +23°C	**6 / 10**	J	ISO 6603-2
[C] Puncture energy, -30°C	**4 / -**	J	ISO 6603-2
Ball indentation hardness	**210 / 100**	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	**200 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**215 / ***	°C	ISO 75-1/-2
Vicat softening temperature, B	**200 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**20 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**80 / ***	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	-
Burning behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**3.2 / ***	mm	-
[C] Oxygen index	**22 / ***	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4.2 / 12**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.8 / 4.4**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**100 / 2550**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**170 / 780**	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	**40 / 35**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**425 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**7 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**2.1 / ***	%	Sim. to ISO 62
[C] Density	**1360 / -**	kg/m³	ISO 1183
Bulk density	**700**	kg/m³	-

[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

Additives
Release agent

Special Characteristics
Heat stabilized or stable to heat

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