

Durethan® BKV50H3.0 000000
PA6-GF50

Envalior

Injection Molding, 50% Glass Reinforced, Heat Stabilized

ISO 1043 PA6-GF50

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	16800 / 10200	MPa	ISO 527
Stress at Break	225 / 140	MPa	ISO 527
Strain at Break	3 / 5	%	ISO 527
Impact Strength (Charpy), +23°C	100 / 110	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	90 / 90	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	20 / 25	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	15 / 15	kJ/m ²	ISO 179/1eA

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	222 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	205 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	215 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	70 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	-

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	5 / *	%	Sim. to ISO 62
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1570 / -	kg/m ³	ISO 1183

Material Specific Properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	140 / *	cm ³ /g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

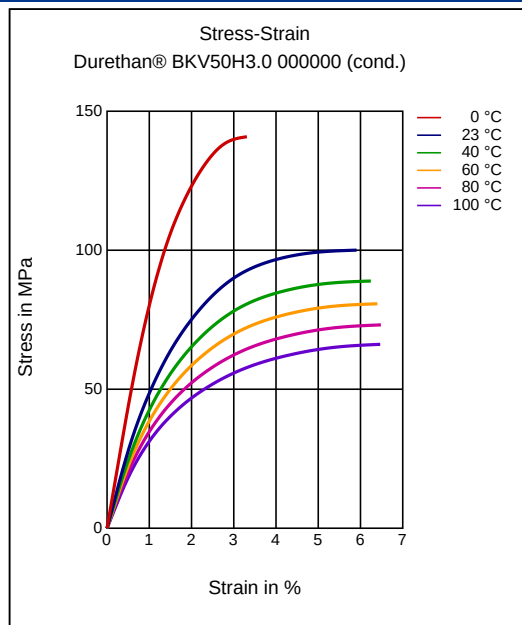
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 120	°C	-

Durethan® BKV50H3.0 000000
PA6-GF50

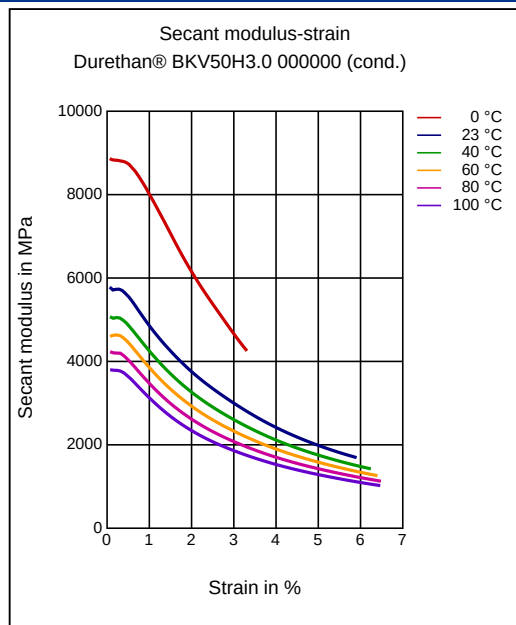
Envalior

Diagrams

Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Special Characteristics

Heat aging stabilized

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