Durethan® BKV25FN01 000000

PA6-GF25 FR(40+30) Envalior

Injection Molding, 25% Glass Reinforced, Flame Retardant (halogen free), Heat Stabilized, Improved flow

ISO 1043 PA6-GF25 FR(40+30)

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	9300 / 5800	MPa	ISO 527
Stress at Break	130 / 80	MPa	ISO 527
Strain at Break	3.1 / 6.5	%	ISO 527
Impact Strength (Charpy), +23°C	60 / 65	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 13	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	9000 / 5500	MPa	ISO 178
Flexural strength	205 / 140	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	10 / 15	kJ/m²	ISO 180/1A
Notched Impact Strength (Izod)	10 / 10	kJ/m²	ISO 180/1A
Temperature	-30	°C	-
Impact Strength (Izod), 23°C	50 / 55	kJ/m²	ISO 180/1U
Ball Indentation Hardness	183 / -	MPa	ISO 2039-1

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)	202 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	220 / *	°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	80 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	V-0 / *	class	UL 94
Burning Behav. 5V at Thickness h	5VA / *	class	IEC 60695-11-20
Thickness tested	1.5 / *	mm	-
Oxygen index	32 / *	%	ISO 4589-1/-2
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.75	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	1.5	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
Glow Wire Ignition Temperature)	775	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1.5	mm	-
Glow Wire Ignition Temperature)	775	°C	IEC 60695-2-13
GWIT - thickness tested (2)	3	mm	-

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Volume Resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Electric Strength	39 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

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	1390 / -	kg/m³	ISO 1183

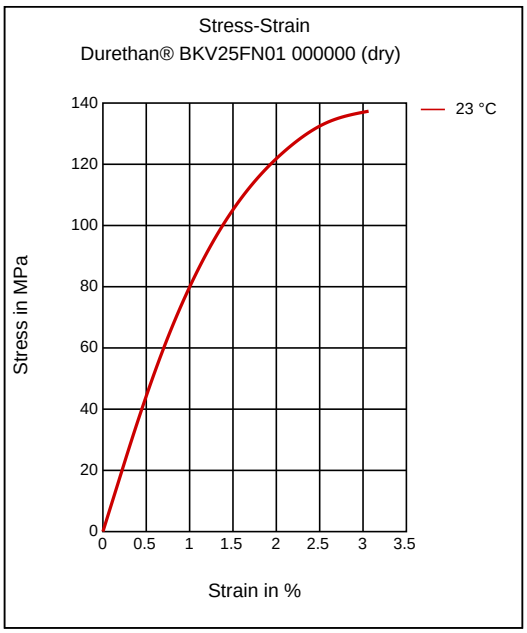
Test specimen production	Value	Unit	Test Standard
ISO Data			

Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

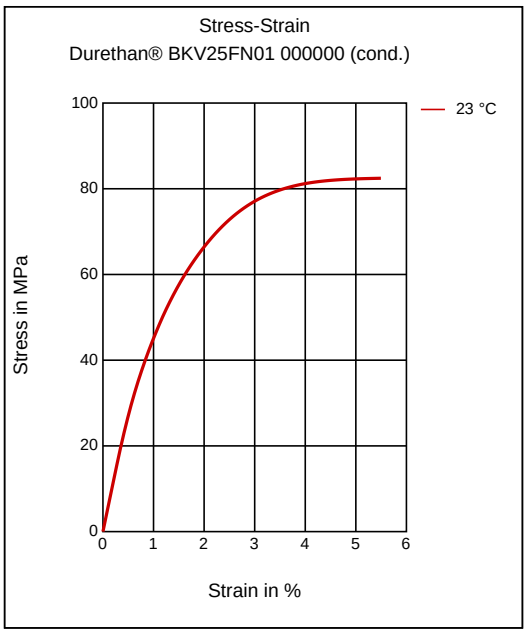
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.07	%	-
Melt temperature	250 - 270	°C	-
Mold temperature	80 - 100	°C	-

Diagrams

Stress-strain

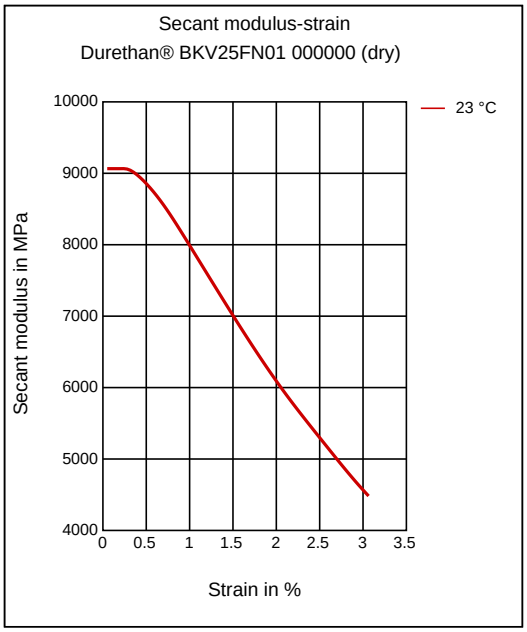


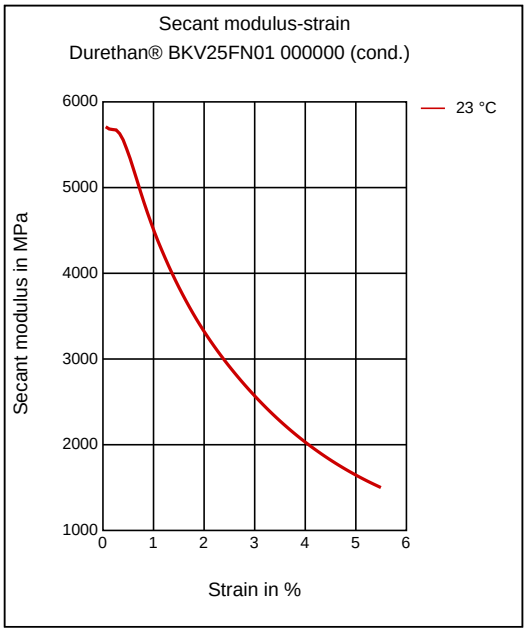
Stress-strain



Secant modulus-strain

Secant modulus-strain


Secant modulus-strain
Durethan® BKV25FN01 000000 (dry)
Secant modulus in MPa
10000
9000
8000
7000
6000
5000
4000
0
0.5
1
1.5
2
2.5
3
3.5
Strain in %
23 °C



Characteristics

Processing
Injection Molding

Special Characteristics
Flame retardant, Halogen-free, Heat aging stabilized

Delivery form
Pellets

Features
Thermal Stability

Injection Molding
PREPROCESSING
Residual moisture content: 0.03 - 0.07%
Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING
Melt temperature (Tmin - Tmax): 250 - 270 °C

Mold temperature: 80 - 100 °C

Disclaimer

Liability Exclusion
These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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-

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