

Durethan® BKV25FN27 000000
PA6-GX25 FR(30+30)

Envalior

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

ISO 1043 PA6-GX25 FR(30)

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.6 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	5600 / 2300	MPa	ISO 527
Stress at Break	85 / 40	MPa	ISO 527
Strain at Break	3.2 / 25	%	ISO 527
Impact Strength (Charpy), +23°C	30 / 70	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 10	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m ²	ISO 179/1eA
Flexural Modulus (23°C)	5100 / 2300	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	10 / 10	kJ/m ²	ISO 180/1A
Notched Impact Strength (Izod)	10 / 10	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-
Impact Strength (Izod), 23°C	25 / 60	kJ/m ²	ISO 180/1U
Ball Indentation Hardness	180 / -	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)	170 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	210 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	50 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	90 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thicken.	V-2 / *	class	UL 94
Thickness tested	1.5 / *	mm	-
Oxygen index	27 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Volume Resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Electric Strength	30 / -	kV/mm	IEC 60243-1
Comparative tracking index	550 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2.1 / *	%	Sim. to ISO 62
Density	1340 / -	kg/m ³	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

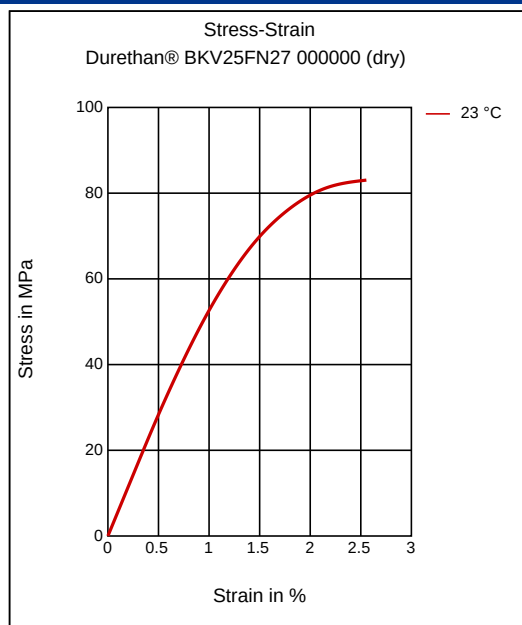
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.07	%	-
Melt temperature	250 - 270	°C	-
Mold temperature	80 - 100	°C	-

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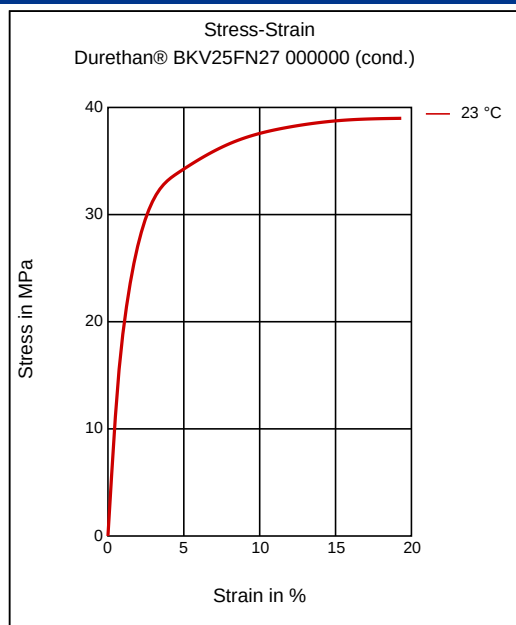
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Diagrams

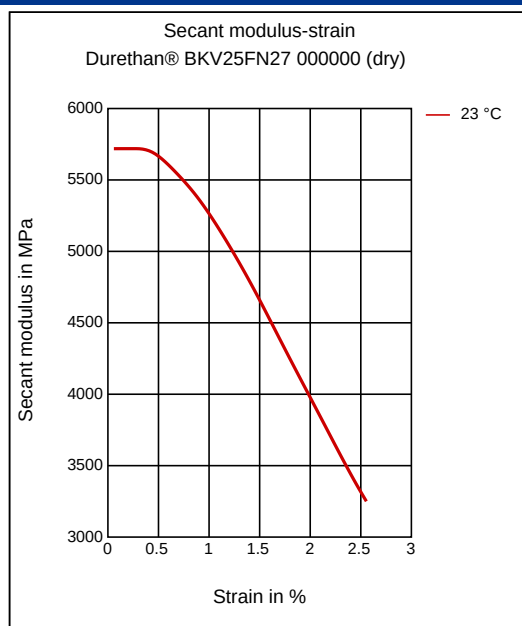
Stress-strain



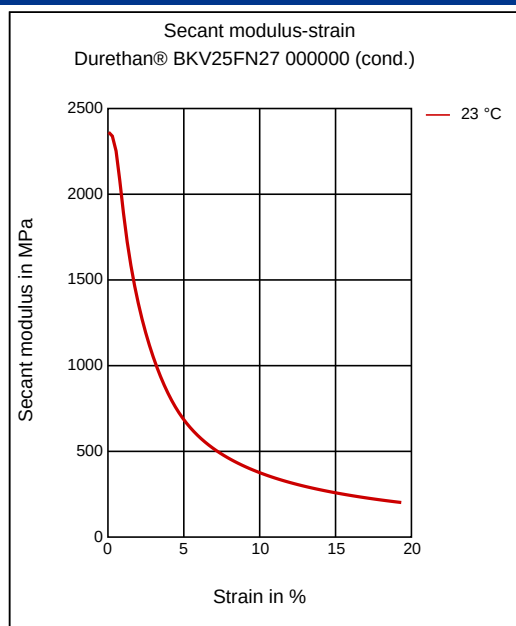
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Special Characteristics

Flame retardant, Halogen-free, Heat aging stabilized

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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
