

Durethan® BKV20FN01 000000
PA6-GF18 FR(40+30)

Envalior

Injection Molding, 18% Glass Reinforced, Flame Retardant (halogen free), Heat Stabilized

ISO 1043 PA6-GF18 FR(40+30)

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	37 / *	cm ³ /10min	ISO 1133
Temperature	260 / *	°C	-
Load	5 / *	kg	-
Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.6 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	7960 / 4500	MPa	ISO 527
Stress at Break	105 / 60	MPa	ISO 527
Strain at Break	3 / 4.9	%	ISO 527
Impact Strength (Charpy), +23°C	50 / 60	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 12	kJ/m ²	ISO 179/1eA
Flexural Modulus (23°C)	7200 / 4200	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	10 / 12	kJ/m ²	ISO 180/1A
Impact Strength (Izod), 23°C	40 / 45	kJ/m ²	ISO 180/1U

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)	200 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	218 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	30 / *	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. Thickn.	V-0 / *	class	UL 94
Burning Behav. 5V at Thickness h	5VA / *	class	IEC 60695-11-20
Thickness tested	3.0 / *	mm	-
Oxygen index	34 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4 / 9	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.5 / 4	-	IEC 62631-2-1
Dissipation Factor, 100Hz	165 / 1250	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	170 / 775	E-4	IEC 62631-2-1
Volume Resistivity	>1E13 / 1.2E11	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 3.7E14	Ohm	IEC 62631-3-2
Electric Strength	36 / 35	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	5.3 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1340 / -	kg/m ³	ISO 1183

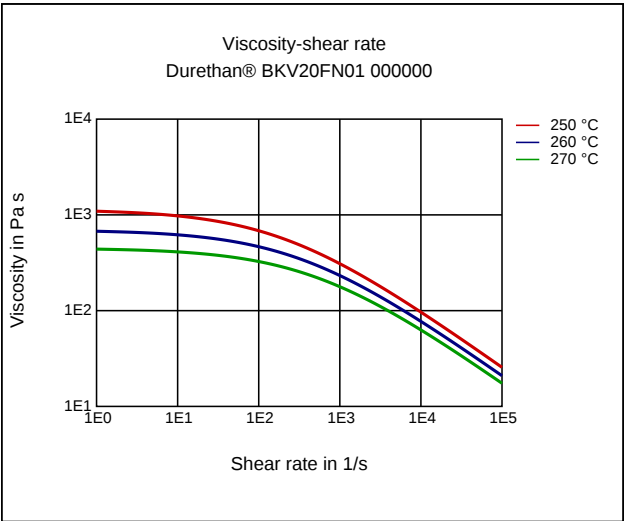
Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.07	%	-

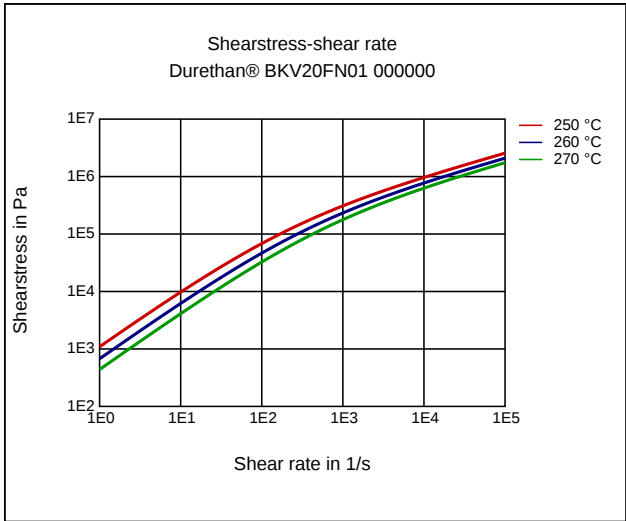
Melt temperature	250 - 270	°C	-
Mold temperature	80 - 100	°C	-

Diagrams

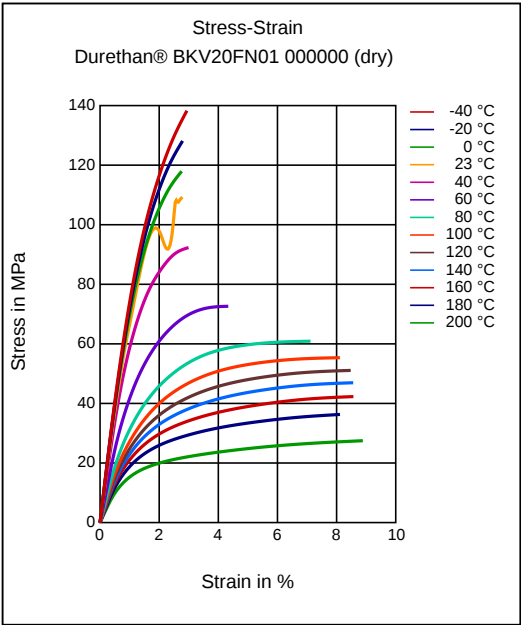
Viscosity-shear rate



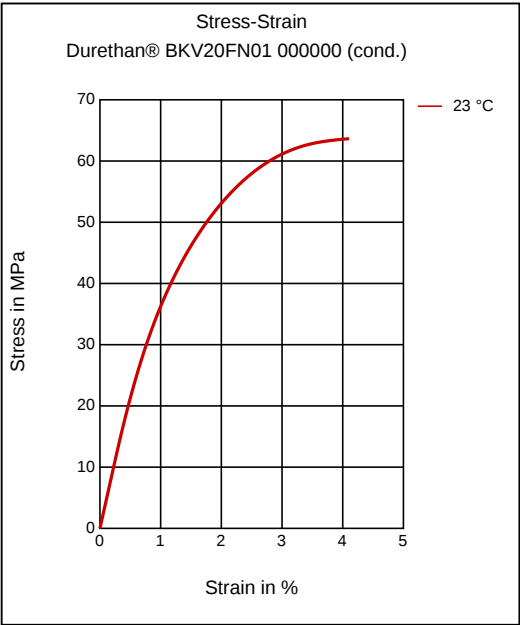
Shearstress-shear rate



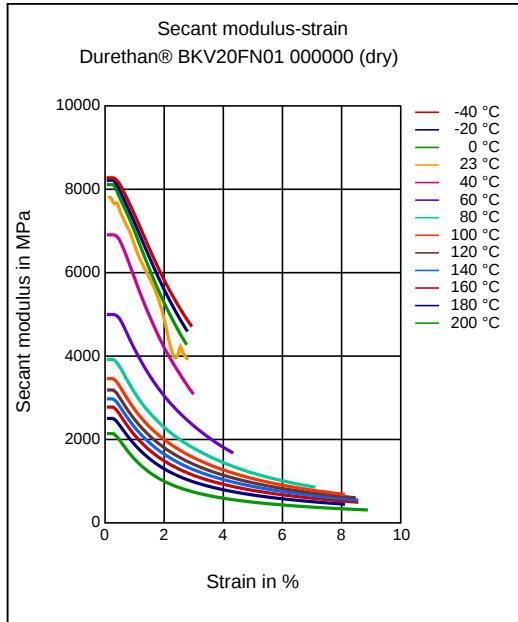
Stress-strain



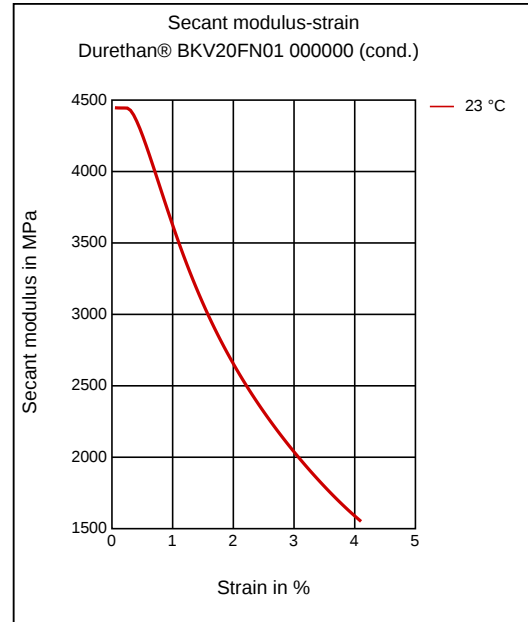
Stress-strain



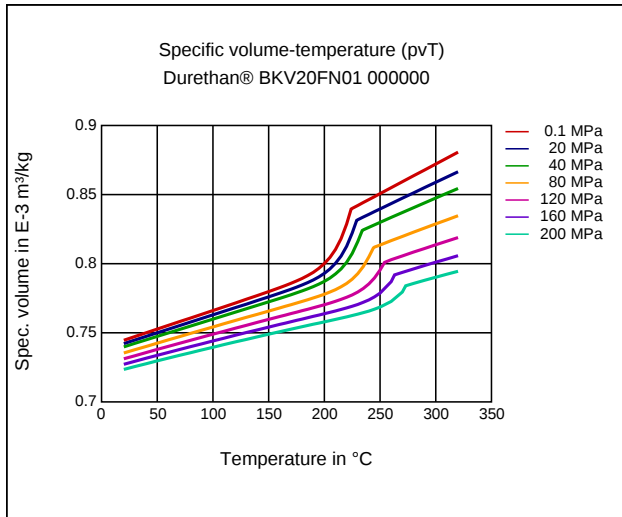
Secant modulus-strain



Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Delivery form

Pellets

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

Special Characteristics

Flame retardant, Halogen-free, Heat aging stabilized

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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