

Durethan® B30SFN31 000000
PA6 FR(30)

Envalior

Injection Molding, Unreinforced, Flame Retardant (halogen free), Heat Stabilized

ISO 1043 PA6 FR(30)

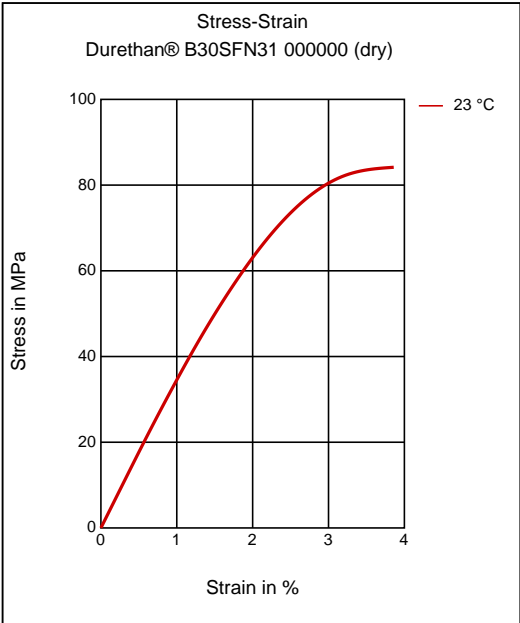
Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	1.0 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577
Mechanical Properties			
ISO Data			
Tensile Modulus	3500 / 1200	MPa	ISO 527
Yield stress	80 / 45	MPa	ISO 527
Yield strain	3.9 / 25	%	ISO 527
Nominal strain at break	4.9 / -	%	ISO 527
Impact Strength (Charpy), +23°C	70 / no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	65 / 80	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 12	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	3500 / 1300	MPa	ISO 178
Flexural strength	120 / 45	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	10 / 11	kJ/m²	ISO 180/1A
Impact Strength (Izod), 23°C	50 / -	kJ/m²	ISO 180/1U
Thermal Properties			
ISO Data			
Temp. of deflection under load (1.80 MPa)	75 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	185 / *	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	80 / *	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
Thickness tested	1.5 / *	mm	-
Oxygen index	36 / *	%	ISO 4589-1/-2
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	0.4	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (2)	0.75	mm	-
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	1.5	mm	-
Glow Wire Ignition Temperature	960	°C	IEC 60695-2-13
GWIT - thickness tested (1)	0.4	mm	-
Glow Wire Ignition Temperature	960	°C	IEC 60695-2-13
GWIT - thickness tested (2)	0.75	mm	-
Glow Wire Ignition Temperature	960	°C	IEC 60695-2-13
GWIT - thickness tested (3)	1.5	mm	-
Electrical Properties			
ISO Data			
Relative permittivity, 100Hz	3.6 / -	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.5 / -	-	IEC 62631-2-1
Dissipation Factor, 100Hz	140 / -	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	195 / -	E-4	IEC 62631-2-1
Volume Resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Electric Strength	23 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112
Other Properties			
ISO Data			
Water Absorption	8.5 / *	%	Sim. to ISO 62
Humidity absorption	2.7 / *	%	Sim. to ISO 62
Density	1170 / -	kg/m³	ISO 1183
Bulk density	700	kg/m³	-

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

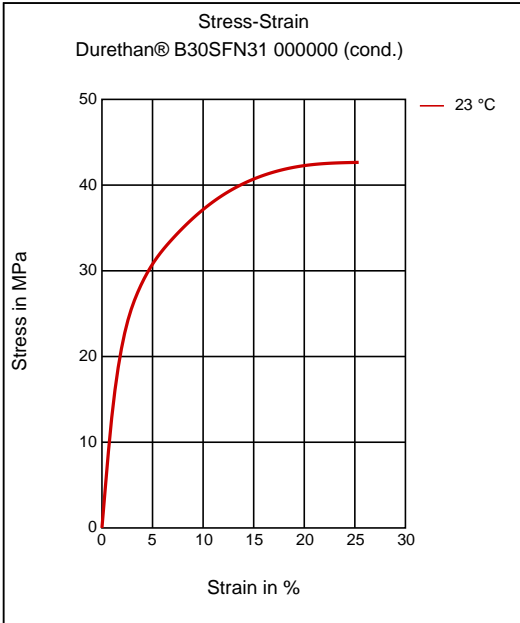
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.07	%	-
Melt temperature	255 - 270	°C	-
Mold temperature	80 - 100	°C	-

Diagrams

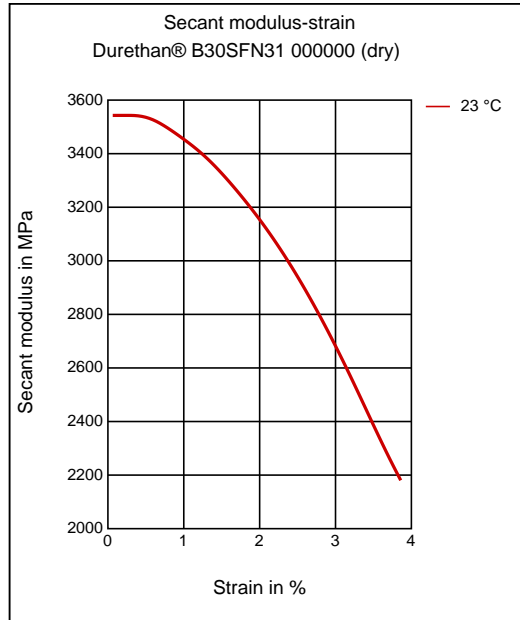
Stress-strain



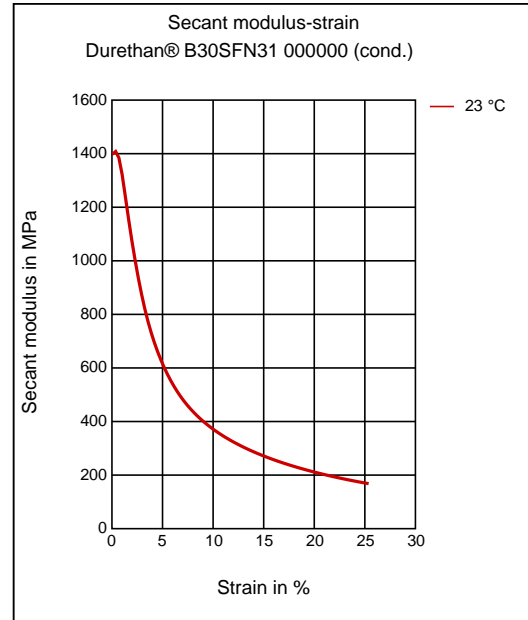
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Flame retardant, Halogen-free, Heat aging stabilized

Applications

Electrical and Electronical

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): 255 - 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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