

Durethan B31SK 000000

PA6

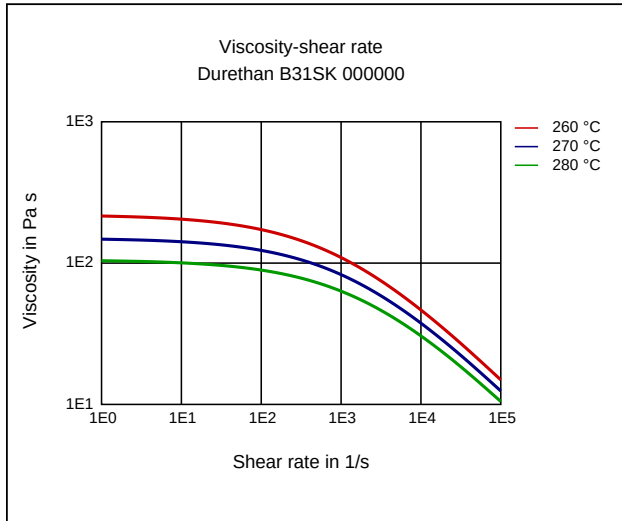
LANXESS Deutschland GmbH

PA 6, non-reinforced, injection molding

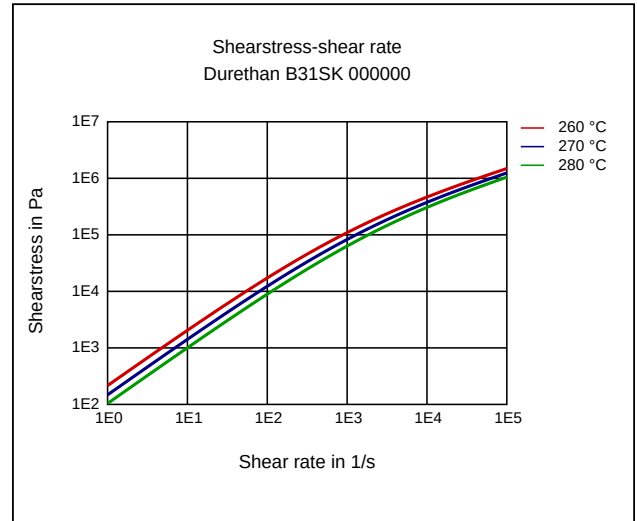
Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	110 / *	cm ³ /10min	ISO 1133
Temperature	260 / *	°C	-
Load	5 / *	kg	-
Mechanical Properties			
ISO Data			
Tensile Modulus	3500 / 1100	MPa	ISO 527
Yield stress	85 / 50	MPa	ISO 527
Yield strain	4 / 20	%	ISO 527
Nominal strain at break	10 / >50	%	ISO 527
Tensile creep modulus, 1h	* / 900	MPa	ISO 899-1
Tensile creep modulus, 1000h	* / 700	MPa	ISO 899-1
Charpy impact strength (+23°C)	no break / no break	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	no break / no break	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	- / 25	kJ/m ²	ISO 179/1eA
Puncture - maximum force, +23°C	6100 / -	N	ISO 6603-2
Puncture - maximum force, -30°C	6800 / -	N	ISO 6603-2
Puncture energy, +23°C	65 / -	J	ISO 6603-2
Puncture energy, -30°C	70 / -	J	ISO 6603-2
Thermal Properties			
ISO Data			
Melting temperature (10°C/min)	222 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	60 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	170 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	70 / *	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-2 / *	class	UL 94
Thickness tested	1.5 / *	mm	-
Burning behav. at thickness h	V-2 / *	class	UL 94
Thickness tested	0.4 / *	mm	-
Oxygen index	25 / *	%	ISO 4589-1/-2
Electrical Properties			
ISO Data			
Relative permittivity, 100Hz	4 / 13	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.5 / 4	-	IEC 62631-2-1
Dissipation factor, 100Hz	60 / 1900	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	200 / 1000	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E10	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E14	Ohm	IEC 62631-3-2
Electric strength	30 / 30	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112
Other Properties			
ISO Data			
Water absorption	10 / *	%	Sim. to ISO 62
Humidity absorption	3 / *	%	Sim. to ISO 62
Density	1140 / -	kg/m ³	ISO 1183
Material Specific Properties			
ISO Data			
Viscosity number	138 / *	cm ³ /g	ISO 307, 1157, 1628
Test specimen production			
ISO Data			
Injection Molding, melt temperature	270	°C	ISO 294

Diagrams

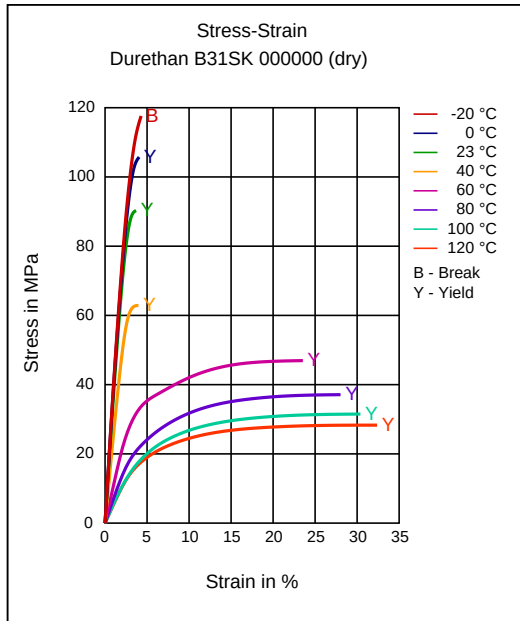
Viscosity-shear rate



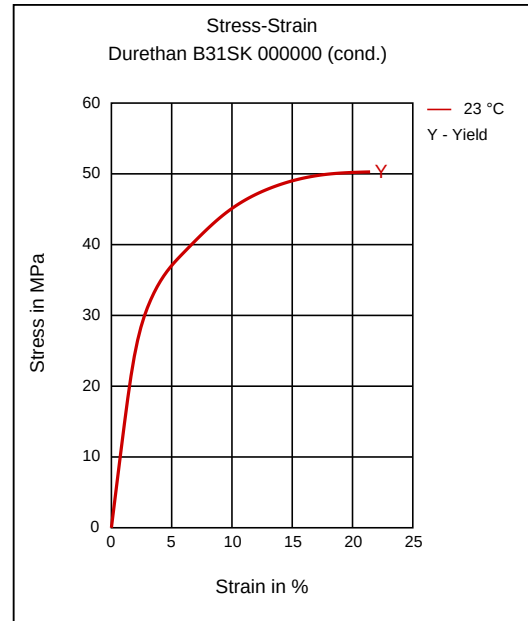
Shearstress-shear rate



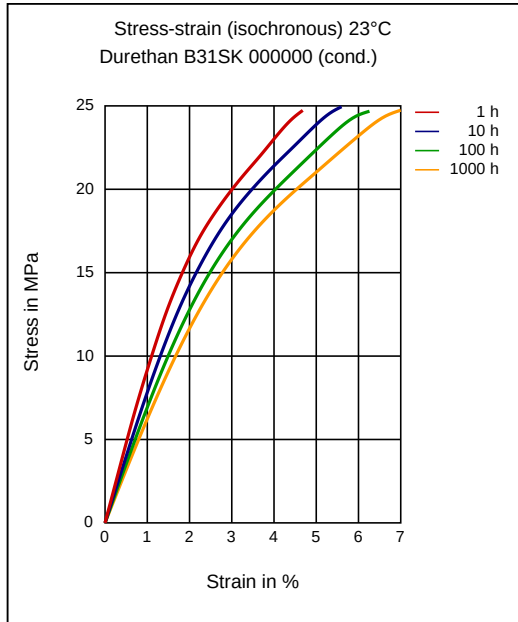
Stress-strain



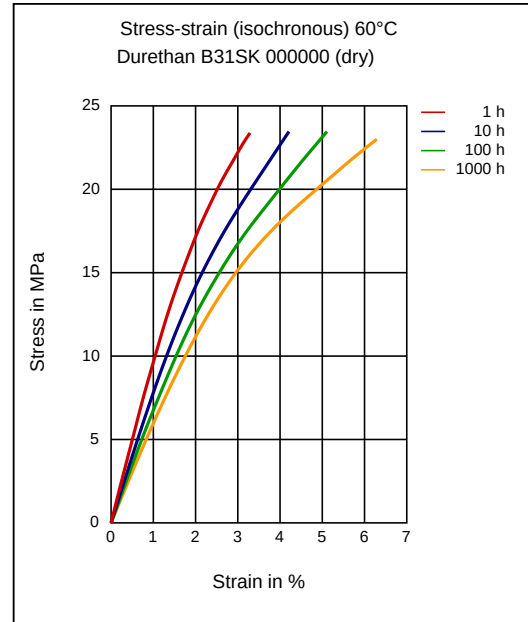
Stress-strain



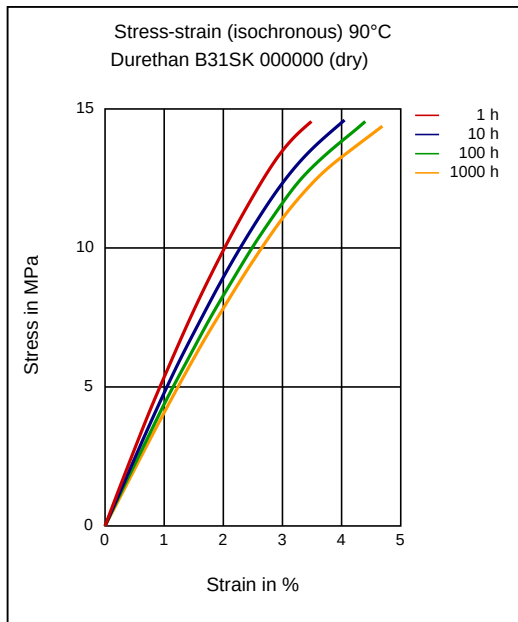
Stress-strain (isochronous) 23 °C



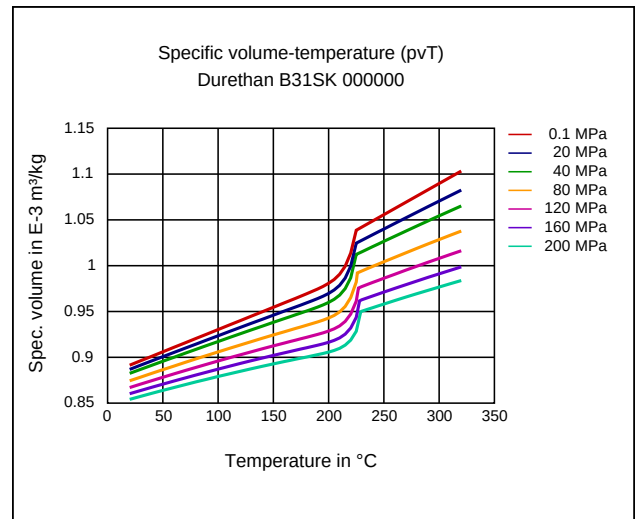
Stress-strain (isochronous) 60 °C



Stress-strain (isochronous) 90 °C



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Delivery form

Pellets

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): 260-280 °C

Mold temperature: 80-100 °C

Disclaimer

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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