

Durethan BC30 000000
PA6-I

LANXESS Deutschland GmbH

PA 6, non-reinforced, injection molding, improved impact strength

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	1.6 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.8 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	2800 / 1200	MPa	ISO 527
Yield stress	65 / 40	MPa	ISO 527
Yield strain	4 / 20	%	ISO 527
Nominal strain at break	- / >50	%	ISO 527
Charpy impact strength (+23°C)	no break / no break	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	no break / no break	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 50	kJ/m²	ISO 179/1eA
Puncture - maximum force, +23°C	4340 / 470	N	ISO 6603-2
Puncture - maximum force, -30°C	5870 / 940	N	ISO 6603-2
Puncture energy, +23°C	55 / 140	J	ISO 6603-2
Puncture energy, -30°C	65 / 20	J	ISO 6603-2

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)	55 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	145 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	100 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	135 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	-
Burning behav. at thickness h	HB / *	class	UL 94
Thickness tested	0.8 / *	mm	-
Oxygen index	22 / *	%	ISO 4589-1/-2

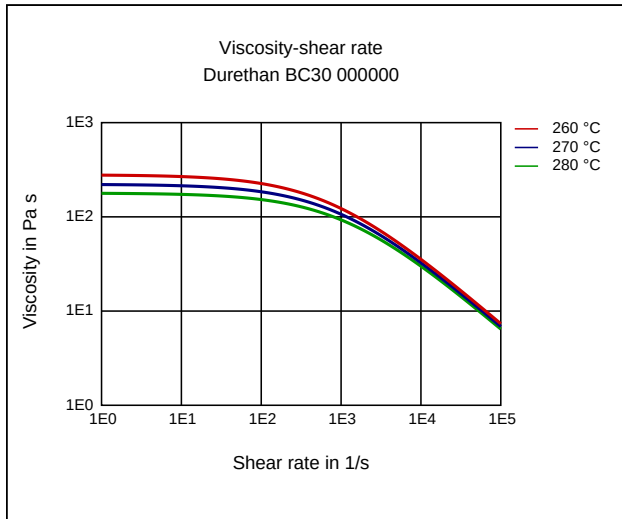
Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.7 / 8.5	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.3 / 3.8	-	IEC 62631-2-1
Dissipation factor, 100Hz	110 / 1650	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	190 / 660	E-4	IEC 62631-2-1
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 62631-3-1
Surface resistivity	* / 1E14	Ohm	IEC 62631-3-2
Electric strength	35 / 35	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	9 / *	%	Sim. to ISO 62
Humidity absorption	2.7 / *	%	Sim. to ISO 62
Density	1100 / -	kg/m³	ISO 1183

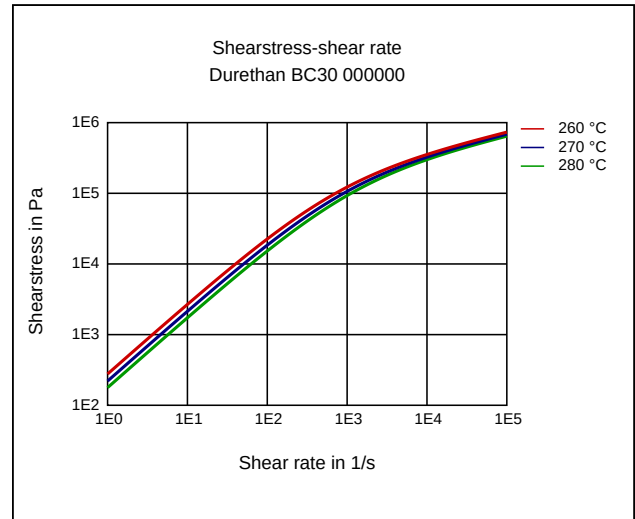
Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	270	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

Diagrams

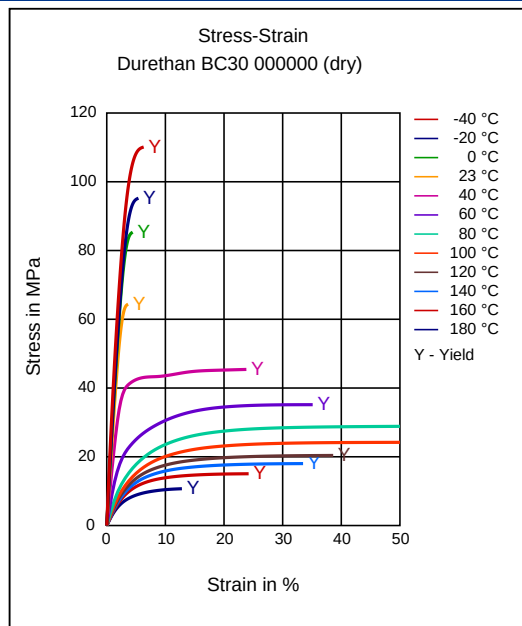
Viscosity-shear rate



Shearstress-shear rate



Stress-strain



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Impact modified

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: 80-90 °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.**

Any information given on the chemical and physical characteristics of our products, including, without limitation, technical advice on applications, whether verbally, in writing or by testing the product, is given to the best of our knowledge and in good faith and does not exempt the buyer from carrying out their own investigations and tests in order to ascertain the product's specific suitability for the purpose intended. The buyer is solely responsible for confirming the suitability of the product for a particular application, its utilization and processing and must observe any applicable laws and government regulations. **NO EXPRESS OR IMPLIED RECOMMENDATION OR WARRANTY IS GIVEN WITH REGARD TO THE SUITABILITY OF THE PRODUCT FOR A PARTICULAR APPLICATION, SUCH AS, BUT NOT LIMITED TO, SAFETY-CRITICAL COMPONENTS OR SYSTEMS.**

Healthcare uses: the supply of any product by ALBIS for any medical, pharmaceutical or diagnostic application is conditional to an assessment by ALBIS in terms of compliance with ALBIS' internal risk management policy – even for products which are in general designated for use in Healthcare applications.

Important: irrespective of product type or designation, ALBIS does not recommend or support the use of any products it supplies which fall into the following medical, pharmaceutical or diagnostic application categories:

- risk class III applications according to EU directive 93/42/EEC
- any bodily implant application for greater than 30 days
- any critical component in any medical device that supports or sustains human life.

At all times, our standard terms and conditions of sale apply.