Durethan B 30 S 000000

PA 6, injection molding-grade, nonreinforced, easy-flow, easy-release, rapid solidification

ISO/ ASTM

ISO Shortname: ISO 1874-PA 6,MR,14-030

Property		Test Condition	Unit	Standard	Value	
					d.a.m.	cond.
Rheological properties						
C	Melt volume-flow rate	260 °C; 5 kg	cm³/(10 min)	ISO 1133	110	
	Molding shrinkage, parallel	150x105x3; 260 °C / MT 80 °C; 500 bar	%	acc. ISO 2577	1.02	
	Molding shrinkage, normal	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 2577	1.16	
	Post- shrinkage, parallel	150x105x3; 120 °C; 4 h	%	acc. ISO 2577	0.32	
	Post- shrinkage, normal	150x105x3; 120 °C; 4 h	%	acc. ISO 2577	0.4	
Mechanical properties (23 °C/50 % r. h.)						
C	Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	3200	1000
C	Yield stress	50 mm/min	MPa	ISO 527-1,-2	80	40
C	Yield strain	50 mm/min	%	ISO 527-1,-2	4.0	20
C	Nominal strain at break	50 mm/min	%	ISO 527-1,-2	20	> 50
C	Tensile creep modulus	1 h	MPa	ISO 899-1		800
C	Tensile creep modulus	1000 h	MPa	ISO 899-1		600
C	Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	N	N
C	Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	N	N
C	Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	< 10	20
C	Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	<10	<10
	Izod impact strength	23 °C	kJ/m²	ISO 180-1U	N	N
	Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	N	N
	Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	< 10	< 10
	Flexural modulus	2 mm/min	MPa	ISO 178	2900	850
	Flexural strength	2 mm/min	MPa	ISO 178	110	35
	Flexural strain at flexural strength	2 mm/min	%	ISO 178	6.0	8.0
	Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	95	25
C	Puncture maximum force	23 °C	N	ISO 6603-2	5141	
C	Puncture maximum force	-30 °C	N	ISO 6603-2	6543	

C	Puncture energy	23 °C	J	ISO 6603-2	12	
C	Puncture energy	-30 °C	J	ISO 6603-2	10	
	Ball indentation hardness		N/mm²	ISO 2039-1	140	50
Thermal properties						
C	Melting temperature	10 °C/min	°C	ISO 11357-1,-3	222	
C	Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	~55	
C	Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	~160	
C	Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	~45	
	Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	~200	
C	Coefficient of linear thermal expansion,	23 to 55 °C	10-4/K	ISO 11359-1,-2	1.0	
C	Coefficient of linear thermal expansion, transverse	23 to 55 °C	10-4/K	ISO 11359-1,-2	1.1	
C	Burning behavior UL 94 (1.6 mm)	1.6 mm	Class	UL 94	V-2	
C	Burning behavior UL 94	3.2 mm	Class	UL 94	V-2	
C	Oxygen index	Method A	%	ISO 4589-2	26	
	Glow wire test (GWFI)	2.0 mm	°C	IEC 60695-2-12	750	
	Burning rate (US-FMVSS)	>=1.0 mm	mm/min	ISO 3795	passed	
C	Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	~ 200	
Electrical properties (23 °C/50 % r. h.)						
C	Relative permittivity	100 Hz	-	IEC 60250	4.0	15
C	Relative permittivity	1 MHz	-	IEC 60250	3.5	4.0
C	Dissipation factor	100 Hz	10-4	IEC 60250	170	2000
C	Dissipation factor	1 MHz	10-4	IEC 60250	200	1200
C	Volume resistivity		Ohm·m	IEC 60093	1E13	1E10
C	Surface resistivity		Ohm	IEC 60093	1E14	1E13
C	Electric strength	1 mm	kV/mm	IEC 60243-1	30	30
C	Comparative tracking index CTI	Solution A	Rating	IEC 60112	600 - 1,3	
	Comparative tracking index CTI M	Solution B	Rating	IEC 60112	600 M	
Other properties (23 °C)						
C	Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	~10	
C	Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	~3	
C	Density		kg/m³	ISO 1183	1140	

	Bulk density	kg/m³	ISO 60	~700	
Processing conditions for test specimens					
C	Injection molding-Melt temperature	°C	ISO 294	260	
C	Injection molding-Mold temperature	°C	ISO 294	80	

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

Disclaimer

Disclaimer for sales products

This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from t

Test values

Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions,

Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensure

Conditioning

Conditioning in accordance with ISO 1110 (70°C; 62% r.H.)

Công ty TNHH TMDV Toàn Đại Hưng
9 Đường số 7, Cư xá Bình Thới P.8 Q.11
ĐT: (08) 39622857 – 39623270 – 39627761
Fax: (08) 39620989
Email: sales.toandaihung@hcm.fpt.vn