

Durethan B;T
Reference data

Properties	Test conditions	Units	Standards	X						
				Unreinforced						
				General grades						
				B 30 S		B 31 SK		B 36 AS		
				fr. moulded ¹⁾	cond ²⁾	fr. moulded ¹⁾	cond ²⁾	fr. moulded ¹⁾	cond ²⁾	
Rheological properties										
C	Melt volume-flow rate	260 jC; 5 kg	cm ³ /(10 min)	ISO 1133	110					
	Moulding shrinkage³⁾	parallel across	%	based on ISO 2577	1.14 1.39		0.9 1.1			
	Post-shrinkage,	parallel across	120 jC; 4 h	%	based on ISO 2577		0.26 0.29		0.15 0.15	
Mechanical properties										
C	Tensile modulus	1 mm/min	MPa	ISO 527	3200	1000	3500	1100	3000	800
C	Yield stress	50 mm/min	MPa	ISO 527	80	40	85	50	75	40
C	Tensile strain at yield	50 mm/min	%	ISO 527	4	20	4	20	4	25
C	Nominal tensile strain at break	50 mm/min	%	ISO 527	20	> 50	10	> 50	20	> 50
C	Tensile stress at break	5 mm/min	MPa	ISO 527	50	60	50	70	50	60
C	Tensile strain at break	5 mm/min	%	based on ISO 527	35	> 50	20	> 50	35	> 50
C	Tensile creep modulus	1 h	MPa	ISO 899-1	800		900			
C	Tensile creep modulus	1000 h	MPa	ISO 899-1	600		700			
C	CHARPY impact strength	23 jC	kJ/m²	ISO 179-1eU	NB	NB	NB	NB	NB	NB
C	CHARPY impact strength	Đ30 jC	kJ/m ²	ISO 179-1eU	NB	NB	NB	NB	NB	NB
C	CHARPY notched impact strength	23 jC	kJ/m²	ISO 179-1eA	< 10	25	< 10	25	< 10	50
C	CHARPY notched impact strength	Đ30 jC	kJ/m ²	ISO 179-1eA	< 10	< 10	< 10	< 10	< 10	< 10
	IZOD impact strength	23 jC	kJ/m²	ISO 180-1C	NB	NB	NB	NB	NB	NB
	IZOD impact strength	Đ30 jC	kJ/m ²	ISO 180-1C	250	250	250	250	250	250
	IZOD notched impact strength	23 jC	kJ/m²	ISO 180-1A	< 10	25	< 10	25	< 10	50
	IZOD notched impact strength	Đ30 jC	kJ/m ²	ISO 180-1A	< 10	< 10	< 10	< 10	< 10	< 10
	Flexural modulus	2 mm/min	MPa	ISO 178	2900	850	3000	900	2600	700
	Flexural strength	5 mm/min	MPa	ISO 178	110	35	120	40	100	30
	Flexural strain at flexural strength	5 mm/min	%	ISO 178	6	8	6	8	5	8
	Flexural stress at 3.5 % strain	5 mm/min	MPa	ISO 178	95	25	100	30	90	20
	Total penetration energy	23 jC	Nm	ISO 6603-2	150	160	80	160	160	150
	Total penetration energy	Đ30 jC	Nm	ISO 6603-2	90				170	
	Ball indentation hardness		N/mm²	ISO 2039-1	140	50	150	55	130	40
Thermal properties										
C	Melting temperature	10 K/min	jC	ISO 3146-C	222		222		221	
C	Temperature of deflection under load, method Af	1.80 MPa	jC	ISO 75	~ 55		~ 60		~ 50	
C	Temperature of deflection under load, method Bf	0.45 MPa	jC	ISO 75	~ 160		~ 170		~ 150	
C	Temperature of deflection under load, method Cf	8.00 MPa	jC	ISO 75	~ 45		~ 50		~ 40	
C	Coefficient of linear thermal expansion	parallel	23 to 55 jC	10 ⁻⁴ /K	ASTM E 831	1.0		0.7		0.8
C	Coefficient of linear thermal expansion	across	23 to 55 jC	10 ⁻⁴ /K	ASTM E 831	1.1		0.9		0.9
C	Flammability UL 94, thickness 1.5			Class	UL 94, (IEC 707)	V-2		V-2		HB
C	Flammability UL 94, thickness 3.0			Class	UL 94, (IEC 707)	V-2		V-2		HB
C	Flammability by oxygen index	Procedure A ⁴⁾ top surface ignition	%	ISO 4589	26				23.5	

* Trial product see back page of brochure
¹⁾ Freshly moulded
²⁾ Conditioning in accordance with ISO 1110
³⁾ Holding pressure 400 bar
⁴⁾ Holding pressure 500 bar
NB = Non break

C These property characteristics are taken from the CAMPUS data bank and are based on the international catalogue of basic data for plastics according to ISO 10350 (Plastics Acquisition and Presentation of Comparable Single-Point Data, 1993).