

Durethan® BC30S

PA6—I

General purpose, Unreinforced, Improved Impact

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	1 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	3200 / 1000	MPa	ISO 527-1/-2
Yield stress	80 / 45	MPa	ISO 527-1/-2
Yield strain	4 / 24	%	ISO 527-1/-2
Flexural modulus	2800 / 1000	MPa	ISO 178
Flexural strength	105 / 40	MPa	ISO 178
Charpy impact strength (+23°C)	N / N	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	N / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / 30	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	<10 / <10	kJ/m²	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / 20	kJ/m²	ISO 180/1A
THERMAL PROPERTIES			
	DRY / COND		
Melting temperature (10°C/min)	221 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	66 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	172 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	1 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.8 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 3.0 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	HB / *	class	IEC 60695-11-10

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
ELECTRICAL PROPERTIES			
Comparative tracking index	600 / –	V	IEC 60112
OTHER PROPERTIES			
Water absorption	10 / *	%	Sim. to ISO 62
Humidity absorption	3 / *	%	Sim. to ISO 62
Density	1120 / –	kg/m³	ISO 1183
PROCESSING RECOMMENDATIONS			
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2–6	h	
Residual moisture content	0.03–0.12	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	260–280	°C	
Mold temperature	80–90	°C	