

Durethan® B30SFN40

PA6 FR(30)

Injection Molding, Unreinforced, Flame Retardant (halogen free), Heat Stabilized

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.9 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	3400 / 1100	MPa	ISO 527-1/-2
Nominal strain at break	9.6 / >50	%	ISO 527-1/-2
Yield stress	90 / 45	MPa	ISO 527-1/-2
Yield strain	4 / 22.5	%	ISO 527-1/-2
Flexural modulus	3000 / 900	MPa	ISO 178
Flexural strength	120 / 35	MPa	ISO 178
Charpy impact strength (+23°C)	N / N	kJ/m²	ISO 179/1eU
Izod notched impact strength (+23°C)	<10 / –	kJ/m²	ISO 180/1A
THERMAL PROPERTIES			
	DRY / COND		
Melting temperature (10°C/min)	222 / *	°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)	166 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.9 / *	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 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10

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Burning Behav. at 0.4 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	28 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	900 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	0.75 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	930 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.4 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	875 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	0.75 / -	mm	IEC 60695-2-13
ELECTRICAL PROPERTIES		DRY / COND	
Volume resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Electric strength	29 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112
OTHER PROPERTIES		DRY / COND	
Water absorption	10 / *	%	Sim. to ISO 62
Humidity absorption	3 / *	%	Sim. to ISO 62
Density	1140 / -	kg/m³	ISO 1183
MATERIAL SPECIFIC PROPERTIES		DRY / COND	
Viscosity number	138 / *	cm³/g	ISO 307, 1157, 1628
PROCESSING RECOMMENDATIONS		VALUE	
Drying temperature dry air dryer	80	°C	

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Drying time dry air dryer	2–6	h	
Residual moisture content	0.03–0.07	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	250–270	°C	
Mold temperature	80–100	°C	