

Durethan[®] BTC70FM30

PA6 FR(61)

70% Mineral Reinforced

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
<i>RHEOLOGICAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Molding shrinkage (parallel)	0.9 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
<i>MECHANICAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Tensile modulus	12800 / 6100	MPa	ISO 527-1/-2
Stress at break	90 / 55	MPa	ISO 527-1/-2
Strain at break	1.1 / 1.8	%	ISO 527-1/-2
Flexural modulus	13600 / 6700	MPa	ISO 178
Flexural strength	165 / 90	MPa	ISO 178
Charpy impact strength (+23°C)	25 / 25	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	15 / 10	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / <10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	<10 / <10	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / <10	kJ/m ²	ISO 180/1A
<i>THERMAL PROPERTIES</i>			
	<i>DRY / COND</i>		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	145 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	195 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.4 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.4 / *	E-4/°C	ISO 11359-1/-2
Thermal conductivity in plane	1.7	W/(m K)	ASTM E1461
Thermal conductivity through plane	1.2	W/(m K)	ASTM E1461

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Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
Burning Behav. at 0.75 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Glow Wire Flammability Index GWFI	960 / –	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.75 / –	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / –	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	1.5 / –	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	775 / –	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.75 / –	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	775 / –	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5 / –	mm	IEC 60695-2-13
<i>ELECTRICAL PROPERTIES</i>	<i>DRY / COND</i>		
Volume resistivity	>1E13 / –	Ohm*m	IEC 62631-3-1
Electric strength	30 / –	kV/mm	IEC 60243-1
Comparative tracking index	600 / –	V	IEC 60112
<i>OTHER PROPERTIES</i>	<i>DRY / COND</i>		
Water absorption	2.7 / *	%	Sim. to ISO 62
Humidity absorption	0.9 / *	%	Sim. to ISO 62
Density	1930 / –	kg/m³	ISO 1183
<i>PROCESSING RECOMMENDATIONS</i>	<i>VALUE</i>		
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

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Melt temperature (Tmin – Tmax)	260–300	°C	
Mold temperature	80–100	°C	