

Durethan® BTC965FM30

PA6—MX68 FR(61)

68% Mineral Reinforced, Injection Molding, Flame Retardant (halogen free), Heat Stabilized, Thermal conductive material

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.6 / *	%	ISO 294-4
Molding shrinkage (normal)	0.5 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	13100 / 6700	MPa	ISO 527-1/-2
Stress at break	75 / 45	MPa	ISO 527-1/-2
Strain at break	0.7 / 1.2	%	ISO 527-1/-2
Flexural modulus	14200 / 6200	MPa	ISO 178
Flexural strength	130 / 65	MPa	ISO 178
Tensile modulus (200°C)	1010	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	9 / 9	kJ/m²	ISO 179/1eU
THERMAL PROPERTIES			
	DRY / COND		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	160 / *	°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)	0.5 / *	E-4/°C	ISO 11359-1/-2
Thermal conductivity in plane	2.5	W/(m K)	ASTM E1461
Thermal conductivity through plane	1.3	W/(m K)	ASTM E1461
Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at 3.0 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Burning Behav. at 0.75 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	100 / *	%	ISO 4589-1/-2
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	750 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.75 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	750 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-13

ELECTRICAL PROPERTIES	DRY / COND		
Relative permittivity (100Hz)	4.8 / -	-	IEC 62631-2-1
Relative permittivity (1 MHz)	4.4 / -	-	IEC 62631-2-1
Dissipation factor (100 Hz)	170 / -	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	140 / -	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Electric strength	34 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112

OTHER PROPERTIES	DRY / COND		
Water absorption	3.2 / *	%	Sim. to ISO 62
Humidity absorption	1 / *	%	Sim. to ISO 62
Density	1730 / -	kg/m³	ISO 1183

PROCESSING RECOMMENDATIONS	VALUE		
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2-6	h	

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Residual moisture content	0.03–0.12	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	260–290	°C	
Mold temperature	80–100	°C	