

Durethan® BM240H3.0

PA6—MX40

40% Mineral Reinforced, Injection Molding, Heat Stabilized, Low Warpage

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.85 / *	%	ISO 294-4
Molding shrinkage (normal)	0.85 / *	%	ISO 294-4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	5700 / 2200	MPa	ISO 527-1/-2
Stress at break	85 / 55	MPa	ISO 527-1/-2
Strain at break	5.5 / 40	%	ISO 527-1/-2
Flexural modulus	5500 / 2000	MPa	ISO 178
Flexural strength	140 / 65	MPa	ISO 178
Charpy impact strength (+23°C)	150 / N	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	130 / 80	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / 12	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 / <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)	85 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	185 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.6 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.7 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
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
Oxygen index	27 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	650 / –	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	2 / –	mm	IEC 60695-2-12

ELECTRICAL PROPERTIES	DRY / COND		
Relative permittivity (100Hz)	4.5 / –	–	IEC 62631-2-1
Relative permittivity (1 MHz)	4 / –	–	IEC 62631-2-1
Dissipation factor (100 Hz)	255 / –	E-4	IEC 62631-2-1
Dissipation factor (1 MHz)	240 / –	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / –	Ohm*m	IEC 62631-3-1
Electric strength	36 / –	kV/mm	IEC 60243-1
Comparative tracking index	550 / –	V	IEC 60112

OTHER PROPERTIES	DRY / COND		
Water absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1440 / –	kg/m³	ISO 1183

PROCESSING RECOMMENDATIONS	VALUE		
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)	280-300	°C	
Mold temperature	80-120	°C	