

Durethan® BM240H3.0 000000
PA6-MX40

Envalior

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

ISO 1043 PA6-MX40

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.8 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	5700 / 2200	MPa	ISO 527
Stress at Break	85 / 55	MPa	ISO 527
Strain at Break	5.5 / 40	%	ISO 527
Impact Strength (Charpy), +23°C	150 / no break	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	130 / 80	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 12	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m ²	ISO 179/1eA
Puncture - maximum force, +23°C	3030 / -	N	ISO 6603-2
Puncture - maximum force, -30°C	728 / -	N	ISO 6603-2
Puncture energy, +23°C	20 / 65	J	ISO 6603-2
Puncture energy, -30°C	3 / -	J	ISO 6603-2

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
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	60 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	70 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	-
Oxygen index	27 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	4.5 / -	-	IEC 62631-2-1
Relative permittivity, 1MHz	4 / -	-	IEC 62631-2-1
Dissipation Factor, 100Hz	255 / -	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	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 / -	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1440 / -	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	290	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 120	°C	-

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Characteristics

Processing

Injection Molding

Special Characteristics

Heat aging stabilized

Delivery form

Pellets

Features

Low Warpage

Injection Molding

PREPROCESSING

Residual moisture content: 0.03 - 0.12%

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 280 - 300 °C

Mold temperature: 80 - 120 °C