Property Data

Envalior
Imagine the Future

Durethan® BM240H2.0

PA6-MX40

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

Print Date: 2024-12-10

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	6000 / 2200	MPa	ISO 527-1/-2
Stress at break	85 / 50	MPa	ISO 527-1/-2
Strain at break	7 / 40	%	ISO 527-1/-2
Flexural modulus	5500 / 2100	MPa	ISO 178
Flexural strength	150 / 60	MPa	ISO 178
Tensile modulus (200°C)	495	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	120 / N	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	90 / 90	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 (-40°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)	90 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	190 / *	°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
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

Property Data

Durethan® BM240H2.0

Print Date: 2024–12–10

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Thickness tested	0.75 / *	mm	IEC 60695–11–10
Oxygen index	26 / *	%	ISO 4589–1/–2
Glow Wire Flammability Index GWFI	700 / –	°C	IEC 60695–2–12
GWFI (Thickness (1) tested)	2 / –	mm	IEC 60695–2–12
ELECTRICAL PROPERTIES	**DRY / COND**		
Relative permittivity (100Hz)	4.4 / 15	–	IEC 62631–2–1
Relative permittivity (1 MHz)	4 / 4.7	–	IEC 62631–2–1
Dissipation factor (100 Hz)	110 / 2500	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	150 / 1000	E–4	IEC 62631–2–1
Volume resistivity	1E13 / 1E9	Ohm*m	IEC 62631–3–1
Surface resistivity	* / 1E13	Ohm	IEC 62631–3–2
Electric strength	35 / 38	kV/mm	IEC 60243–1
Comparative tracking index	525 / –	V	IEC 60112
OTHER PROPERTIES	**DRY / COND**		
Water absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1460 / –	kg/m³	ISO 1183
MATERIAL SPECIFIC PROPERTIES	**DRY / COND**		
Viscosity number	142 / *	cm³/g	ISO 307, 1157, 1628
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	

Property Data

Durethan® BM240H2.0

Print Date: 2024–12–10

PROPERTIES	*TYPICAL DATA*	*UNIT*	*TEST METHOD*
Mold temperature	80–120	°C	