Property Data

Envalior
Imagine the Future

Durethan® BG30XH3.0

PA6-(GF+GB)30

Injection Molding, 30% Glass Fiber/Glass Beads Reinforced, Heat Stabilized, Low Warpage

Print Date: 2025-12-03

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	DRY / COND		
Molding shrinkage (parallel)	0.5 / *	%	ISO 294-4
Molding shrinkage (normal)	0.8 / *	%	ISO 294-4
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	6400 / 3100	MPa	ISO 527-1/-2
Stress at break	120 / 65	MPa	ISO 527-1/-2
Strain at break	4 / 10	%	ISO 527-1/-2
Flexural modulus	5800 / 2800	MPa	ISO 178
Flexural strength	185 / 100	MPa	ISO 178
Tensile modulus (200°C)	1450	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	45 / 75	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	40 / 45	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / 10	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)	190 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	210 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.3 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.9 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
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	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)	265 / –	E–4	IEC 62631–2–1
Dissipation factor (1 MHz)	220 / –	E–4	IEC 62631–2–1
Volume resistivity	1E13 / –	Ohm*m	IEC 62631–3–1
Comparative tracking index	375 / –	V	IEC 60112
OTHER PROPERTIES	**DRY / COND**		
Water absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2.2 / *	%	Sim. to ISO 62
Density	1350 / –	kg/m³	ISO 1183
MATERIAL SPECIFIC PROPERTIES	**DRY / COND**		
Viscosity number	140 / *	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

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PROPERTIES	*TYPICAL DATA*	*UNIT*	*TEST METHOD*
Melt temperature (Tmin – Tmax)	270–290	°C	
Mold temperature	80–120	°C	

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