

Durethan® BG30XW1

PA6—(GF+GB)30

Injection Molding, 30% Glass Fiber/Glass Beads, Low Warpage

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	DRY / COND		
Molding shrinkage (parallel)	0.5 / *	%	ISO 294-4
Molding shrinkage (normal)	0.7 / *	%	ISO 294-4
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	6400 / 3200	MPa	ISO 527-1/-2
Stress at break	125 / 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
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 (+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)	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
OTHER PROPERTIES	DRY / COND		

Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Water absorption	7 / *	%	Sim. to ISO 62
Humidity absorption	2.2 / *	%	Sim. to ISO 62
Density	1360 / –	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)	270–290	°C	
Mold temperature	80–120	°C	