

Durethan[®] BG30FN05

PA6–GX30 FR(30)

30% Glass Beads Reinforced, Injection Molding, Flame Retardant (halogen free), Heat Stabilized, Low Warpage

Print Date: 2024–08–24

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.8 / *	%	ISO 294–4
Molding shrinkage (normal)	0.8 / *	%	ISO 294–4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	5400 / 2100	MPa	ISO 527–1/–2
Stress at break	75 / –	MPa	ISO 527–1/–2
Strain at break	2.2 / –	%	ISO 527–1/–2
Flexural modulus	5200 / 2000	MPa	ISO 178
Flexural strength	120 / 45	MPa	ISO 178
Charpy impact strength (+23°C)	40 / 60	kJ/m ²	ISO 179/1eU
Charpy impact strength (–30°C)	38 / 25	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / <10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (–30°C)	<10 / <10	kJ/m ²	ISO 179/1eA
Izod notched impact strength (+23°C)	<10 / <10	kJ/m ²	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)	100 / *	°C	ISO 75–1/–2
Temp. of deflection under load (0.45 MPa)	195 / *	°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.	V–0 / *	class	IEC 60695–11–10
Thickness tested	1.5 / *	mm	IEC 60695–11–10

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Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Glow Wire Flammability Index GWFI	960 / –	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	0.4 / –	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	960 / –	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	0.75 / –	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	960 / –	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	0.4 / –	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	900 / –	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	0.75 / –	mm	IEC 60695-2-13
<i>ELECTRICAL PROPERTIES</i>	<i>DRY / COND</i>		
Comparative tracking index	550 / –	V	IEC 60112
<i>OTHER PROPERTIES</i>	<i>DRY / COND</i>		
Water absorption	6 / *	%	Sim. to ISO 62
Humidity absorption	1.8 / *	%	Sim. to ISO 62
Density	1410 / –	kg/m ³	ISO 1183
<i>PROCESSING RECOMMENDATIONS</i>	<i>VALUE</i>		
Drying temperature dry air dryer	80	°C	
Drying time dry air dryer	2–6	h	
Residual moisture content	0.03–0.07	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	240–260	°C	
Mold temperature	80–100	°C	
admissible residence time at Tmax	<5	min	

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