Property Data

Envalior
Imagine the Future

Durethan® BCF30H2.0EF

PA6-CF30

30% Carbon Reinforced, Injection Molding, Heat Stabilized, Electrical Conductive, Improved flow

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES	DRY / COND		
Molding shrinkage (parallel)	0.1 / *	%	ISO 294-4
Molding shrinkage (normal)	0.45 / *	%	ISO 294-4
MECHANICAL PROPERTIES	DRY / COND		
Tensile modulus	23000 / 11500	MPa	ISO 527-1/-2
Stress at break	225 / 135	MPa	ISO 527-1/-2
Strain at break	1.7 / 3.5	%	ISO 527-1/-2
Flexural modulus	20500 / 11500	MPa	ISO 178
Flexural strength	330 / 200	MPa	ISO 178
Tensile modulus (200°C)	4950	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	50 / 55	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	45 / 40	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	<10 / 15	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 / 15	kJ/m²	ISO 180/1A
THERMAL PROPERTIES	DRY / COND		
Melting temperature (10°C/min)	221 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	210 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	220 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.1 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.9 / *	E-4/°C	ISO 11359-1/-2

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
OTHER PROPERTIES	**DRY / COND**		
Water absorption	7.5 / *	%	Sim. to ISO 62
Humidity absorption	2.2 / *	%	Sim. to ISO 62
Density	1260 / –	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	0.02–0.12	%	acc. to Karl Fischer
Melt temperature (Tmin – Tmax)	270–290	°C	
Mold temperature	80–120	°C	