

Durethan® BG30XF30 000000
PA6-(GF+GB)30 FR(17)

Envalior

Injection Molding, 30% Glass Fiber/Glass Beads, Flame Retardant, Heat Stabilized, Excellent Surface Properties, Low Warpage

ISO 1043 PA6-(GF+GB)30 FR(17)

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	7500 / 4200	MPa	ISO 527
Stress at Break	105 / 65	MPa	ISO 527
Strain at Break	2.7 / 4.4	%	ISO 527
Impact Strength (Charpy), +23°C	40 / 45	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30°C	30 / 35	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	- / 10	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10	kJ/m ²	ISO 179/1eA
Puncture - maximum force, +23°C	650 / -	N	ISO 6603-2
Puncture - maximum force, -30°C	550 / -	N	ISO 6603-2
Puncture energy, +23°C	2.4 / -	J	ISO 6603-2
Puncture energy, -30°C	1.8 / -	J	ISO 6603-2

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	222 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	185 / *	°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	30 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	90 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	V-0 / *	class	UL 94
Burning Behav. 5V at Thickness h	5VA / *	class	IEC 60695-11-20
Thickness tested	1.5 / *	mm	-
Oxygen index	32 / *	%	ISO 4589-1/-2

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Electric Strength	33 / -	kV/mm	IEC 60243-1

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1630 / -	kg/m ³	ISO 1183

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	270 - 290	°C	-
Mold temperature	80 - 100	°C	-

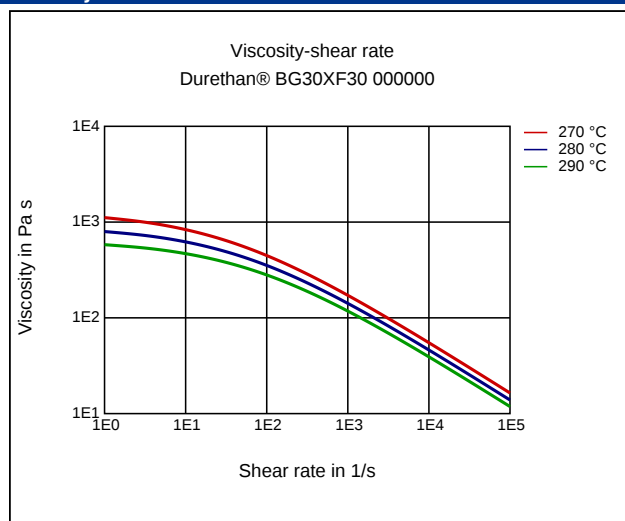
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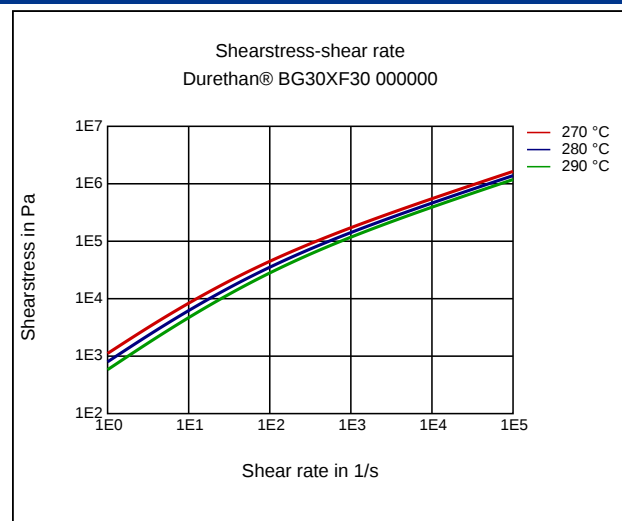
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Diagrams

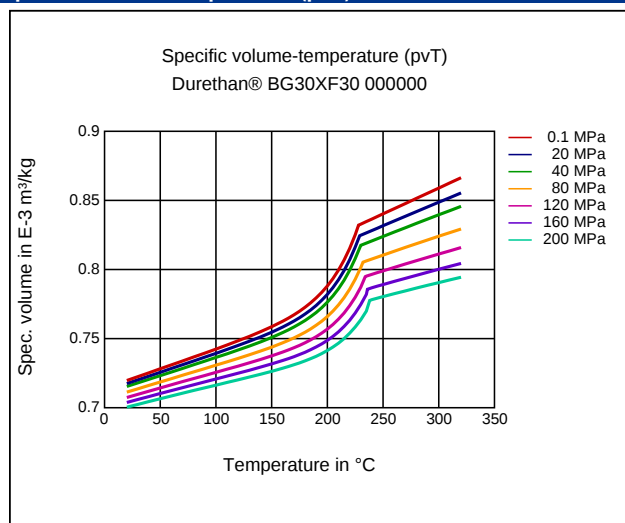
Viscosity-shear rate



Shearstress-shear rate



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Flame retardant, Heat aging stabilized

Features

Low Warpage

Injection Molding

PREPROCESSING

Residual moisture content: 0.03 - 0.12%

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 270 - 290 °C

Mold temperature: 80 - 100 °C