

## Lanxess Durethan® BG 30 X 000000 Nylon 6, 30% Glass Fiber

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 30% Glass Fiber Filled

### Material Notes:

PA 6, injection molding grade, 30% glass fibers/glass spheres, good surface, low warpage

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lanxess-Durethan-BG-30-X-000000-Nylon-6-30-Glass-Fiber.php](http://www.lookpolymers.com/polymer_Lanxess-Durethan-BG-30-X-000000-Nylon-6-30-Glass-Fiber.php)

Physical Properties	Metric	English	Comments
Density	1.36 g/cc	0.0491 lb/in <sup>3</sup>	ISO 1183
Water Absorption	7.0 %	7.0 %	Test Sim. to ISO 62
Moisture Absorption at Equilibrium	2.2 %	2.2 %	23 <sup>o</sup> C/50% R.H.; Test Sim. to ISO 62
Viscosity Test	140 cm <sup>3</sup> /g	140 cm <sup>3</sup> /g	Viscosity number; ISO 307, 1157, 1628
Melt Flow	41 g/10 min @Load 5.00 kg, Temperature 260 <sup>o</sup> C	41 g/10 min @Load 11.0 lb, Temperature 500 <sup>o</sup> F	Estimated using room temperature density; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	65.0 MPa	9430 psi	Conditioned; ISO 527-1/-2
	125 MPa	18100 psi	ISO 527-1/-2
Elongation at Break	4.0 %	4.0 %	ISO 527-1/-2
	10 %	10 %	Conditioned; ISO 527-1/-2
Tensile Modulus	3.20 GPa	464 ksi	Conditioned; ISO 527-1/-2
	6.40 GPa	928 ksi	ISO 527-1/-2
Charpy Impact Unnotched	4.50 J/cm <sup>2</sup> @Temperature -30.0 <sup>o</sup> C	21.4 ft-lb/in <sup>2</sup> @Temperature -22.0 <sup>o</sup> F	ISO 179/1eU
	4.50 J/cm <sup>2</sup> @Temperature -30.0 <sup>o</sup> C	21.4 ft-lb/in <sup>2</sup> @Temperature -22.0 <sup>o</sup> F	Conditioned; ISO 179/1eU
	5.00 J/cm <sup>2</sup> @Temperature 23.0 <sup>o</sup> C	23.8 ft-lb/in <sup>2</sup> @Temperature 73.4 <sup>o</sup> F	ISO 179/1eU
	7.50 J/cm <sup>2</sup>	35.7 ft-lb/in <sup>2</sup>	

Mechanical Properties	@Temperature 23.0 Metric °C	@Temperature 73.4 °F English	Conditioned; ISO 179/1eU Comments
Charpy Impact, Notched	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	
	@Temperature -30.0 °C	@Temperature -22.0 °F	ISO 179/1eA
	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	Conditioned; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.00 J/cm <sup>2</sup>	4.76 ft-lb/in <sup>2</sup>	Conditioned; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Impact	701	701	Puncture maximum force (N); ISO 6603-2
	686	686	Puncture maximum force (N); ISO 6603-2
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Puncture Energy	2.00 J	1.48 ft-lb	ISO 6603-2
	1.70 J	1.25 ft-lb	ISO 6603-2
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.70 J	1.25 ft-lb	Conditioned; ISO 6603-2
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Tensile Creep Modulus, 1 hour	2400 MPa	348000 psi	ISO 899-1
Tensile Creep Modulus, 1000 hours	2000 MPa	290000 psi	ISO 899-1

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	30.0 Åµm/m-Å°C	16.7 Åµin/in-Å°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	90.0 Åµm/m-Å°C	50.0 Åµin/in-Å°F	ISO 11359-1/-2
Melting Point	222 Å°C	432 Å°F	10Å°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	210 Å°C	410 Å°F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	190 Å°C	374 Å°F	ISO 75-1/-2

Thermal Properties	Metric	English	Comments
Vicat Softening Point	200 Â°C	392 Â°F	50Â°C/h 50N; ISO 306
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	HB	HB	IEC 60695-11-10
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	23 %	23 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 ohm-cm	1.00e+11 ohm-cm	Conditioned; IEC 60093
	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	IEC 60093
Dielectric Constant	4.0	4.0	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	4.5	4.5	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	4.8	4.8	Conditioned; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	16	16	Conditioned; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	30.0 kV/mm	762 kV/in	Conditioned; IEC 60243-1
	36.0 kV/mm	914 kV/in	IEC 60243-1
Dissipation Factor	0.013	0.013	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.018	0.018	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.10	0.10	Conditioned; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.31	0.31	

Electrical Properties	Metric @ Frequency 100 Hz	English @ Frequency 100 Hz	Conditioned; IEC 60250 Comments
Comparative Tracking Index	400 V	400 V	IEC 60112

Descriptive Properties	Value	Comments
Additives	Release agent	
Form	Pellets	
ISO Shortname	ISO 1874-PA 6,MR,14-060,(GB+GF)30	
Processing	Injection molding	
Region	Asia Pacific	
	Europe	
	Near East/Africa	
	North America	
	South and Central America	

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