

Lanxess Durethan® B 30 S 000000 Nylon 6

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Unreinforced

Material Notes:

PA 6, injection molding-grade, non-reinforced, easy-flow, easy-release, rapid solidification

Order this product through the following link:

http://www.lookpolymers.com/polymer_Lanxess-Durethan-B-30-S-000000-Nylon-6.php

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in ³	ISO 1183
Water Absorption	10 %	10 %	Test Sim. to ISO 62
Moisture Absorption at Equilibrium	3.0 %	3.0 %	23°C/50% R.H.; Test Sim. to ISO 62
Viscosity Test	134 cm ³ /g	134 cm ³ /g	Viscosity number; ISO 307, 1157, 1628
Melt Flow	102 g/10 min @Load 5.00 kg, Temperature 260 °C	102 g/10 min @Load 11.0 lb, Temperature 500 °F	Calculated from MVR using melt density; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	40.0 MPa	5800 psi	Conditioned; ISO 527-1/-2
	80.0 MPa	11600 psi	ISO 527-1/-2
Elongation at Break	20 %	20 %	Nominal; ISO 527-1/-2
	>= 50 %	>= 50 %	Nominal, Conditioned; ISO 527-1/-2
Elongation at Yield	4.0 %	4.0 %	ISO 527-1/-2
	20 %	20 %	Conditioned; ISO 527-1/-2
Tensile Modulus	1.00 GPa	145 ksi	Conditioned; ISO 527-1/-2
	3.20 GPa	464 ksi	ISO 527-1/-2
Charpy Impact Unnotched	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	Conditioned; ISO 179/1eU
	NB	NB	ISO 179/1eU

Mechanical Properties	Metric	English	Comments
	NB	NB	
	@Temperature 23.0 °C	@Temperature 73.4 °F	Conditioned; ISO 179/1eU
Charpy Impact, Notched	<= 1.00 J/cm ²	<= 4.76 ft-lb/in ²	
	@Temperature -30.0 °C	@Temperature -22.0 °F	ISO 179/1eA
	<= 1.00 J/cm ²	<= 4.76 ft-lb/in ²	
	@Temperature -30.0 °C	@Temperature -22.0 °F	Conditioned; ISO 179/1eA
	<= 1.00 J/cm ²	<= 4.76 ft-lb/in ²	
	@Temperature 23.0 °C	@Temperature 73.4 °F	ISO 179/1eA
	2.00 J/cm ²	9.52 ft-lb/in ²	
	@Temperature 23.0 °C	@Temperature 73.4 °F	Conditioned; ISO 179/1eA
Impact	5141	5141	Puncture maximum force (N); ISO 6603-2
	6543	6543	
	@Temperature -30.0 °C	@Temperature -22.0 °F	Puncture maximum force (N); ISO 6603-2
Puncture Energy	12.0 J	8.85 ft-lb	ISO 6603-2
	10.0 J	7.38 ft-lb	
	@Temperature -30.0 °C	@Temperature -22.0 °F	ISO 6603-2
	10.0 J	7.38 ft-lb	
	@Temperature -30.0 °C	@Temperature -22.0 °F	Conditioned; ISO 6603-2
Tensile Creep Modulus, 1 hour	800 MPa	116000 psi	ISO 899-1
Tensile Creep Modulus, 1000 hours	600 MPa	87000 psi	ISO 899-1

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	100 Åµm/m-Å°C	55.6 Åµin/in-Å°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	110 Åµm/m-Å°C	61.1 Åµin/in-Å°F	ISO 11359-1/-2
Melting Point	222 Å°C	432 Å°F	10Å°C/min; ISO 11357-1/-3

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (264 psi)	55.0 Â°C	131 Â°F	ISO 75-1/-2
Deflection Temperature at 8.0 MPa	45.0 Â°C	113 Â°F	ISO 75-1/-2
Vicat Softening Point	200 Â°C	392 Â°F	50Â°C/h 50N; ISO 306
Flammability, UL94	V-2	V-2	IEC 60695-11-10
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	V-2	V-2	IEC 60695-11-10
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	26 %	26 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	Conditioned; IEC 60093
	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	IEC 60093
Dielectric Constant	3.5	3.5	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	4.0	4.0	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	4.0	4.0	Conditioned; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	15	15	Conditioned; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	30.0 kV/mm	762 kV/in	IEC 60243-1
	30.0 kV/mm	762 kV/in	Conditioned; IEC 60243-1
Dissipation Factor	0.017	0.017	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.020	0.020	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Electrical Properties	0.12 Metric	0.12 English	Comments
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	Conditioned; IEC 60250
	0.20	0.20	Conditioned; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112

Descriptive Properties	Value	Comments
Form	Pellets	
ISO Shortname	ISO 1874-PA 6,MR,14-030	
Processing	Injection molding	
Region	Asia Pacific	
	Europe	
	Near East/Africa	
	North America	
	South and Central America	

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