

## Lanxess Durethan® B 40 E 000000 Nylon 6

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , Extruded

### Material Notes:

PA 6 extrusion grade, standard grade of high viscosity with processing aid/lubricant, not nucleated.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lanxess-Durethan-B-40-E-000000-Nylon-6.php](http://www.lookpolymers.com/polymer_Lanxess-Durethan-B-40-E-000000-Nylon-6.php)

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in <sup>3</sup>	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	225 cm <sup>3</sup> /g	225 cm <sup>3</sup> /g	Viscosity number; ISO 307, 1157, 1628

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	35.0 MPa	5080 psi	Conditioned; ISO 527-1/-2
	75.0 MPa	10900 psi	ISO 527-1/-2
Elongation at Break	30 %	30 %	Nominal; ISO 527-1/-2
	>= 50 %	>= 50 %	Nominal, Conditioned; ISO 527-1/-2
Elongation at Yield	4.0 %	4.0 %	ISO 527-1/-2
	25 %	25 %	Conditioned; ISO 527-1/-2
Tensile Modulus	0.800 GPa	116 ksi	Conditioned; ISO 527-1/-2
	2.80 GPa	406 ksi	ISO 527-1/-2
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	NB	NB	Conditioned; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	NB	NB	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	Conditioned; ISO 179/1eU

Mechanical Properties	Metric @Temperature 23.0 °C	English @Temperature 73.4 °F	Comments
Charpy Impact, Notched	<= 1.00 J/cm <sup>2</sup>	<= 4.76 ft-lb/in <sup>2</sup>	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 -30.0 °C	@Temperature -22.0 °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	
	5.00 J/cm <sup>2</sup>	23.8 ft-lb/in <sup>2</sup>	Conditioned; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	80.0 Åµm/m-Å°C	44.4 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)	150 Å°C	302 Å°F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	50.0 Å°C	122 Å°F	ISO 75-1/-2
Deflection Temperature at 8.0 MPa	40.0 Å°C	104 Å°F	ISO 75-1/-2
Vicat Softening Point	200 Å°C	392 Å°F	50Å°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	24 %	24 %	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+14 ohm-cm	1.00e+14 ohm-cm	IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	IEC 60093

Electrical Properties	Metric	English	Comments
Dielectric Constant	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 60250
	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	
Dielectric Strength	35.0 kV/mm	889 kV/in	IEC 60243-1
	40.0 kV/mm	1020 kV/in	Conditioned; IEC 60243-1
Comparative Tracking Index	600 V	600 V	IEC 60112

Descriptive Properties	Value	Comments
Additives	Lubricants	
Form	Pellets	
ISO Shortname	ISO 1874-PA 6,GR,22-030	
Processing	Injection molding	
	Other extrusion	
Region	Asia Pacific	
	Europe	
	Near East/Africa	
	North America	
	South and Central America	

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