

Lanxess Durethan® B 35 F 000000 Nylon 6, Extrusion, Low Viscosity

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

Material Notes:

PA 6, non-reinforced, extrusion, low viscosity, no additivesInformation provided by LANXESS.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Lanxess-Durethan-B-35-F-000000-Nylon-6-Extrusion-Low-Viscosity.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.14 g/cc	1.14 g/cc	ISO 1183
Moisture Absorption at Equilibrium	3.0 %	3.0 %	50% RH; ISO 62
Water Absorption at Saturation	10 %	10 %	ISO 62
Melt Flow	8.0 g/10 min @Load 2.16 kg, Temperature 235 Â°C	8.0 g/10 min @Load 4.76 lb, Temperature 455 Â°F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	35.0 MPa	5080 psi	cond.; ISO 527-1, -2; 50 mm/min
	75.0 MPa	10900 psi	d.a.m.; ISO 527-1, -2; 50 mm/min
Elongation at Break	20 %	20 %	d.a.m.; ISO 527-1, -2; 50 mm/min
	>= 50 %	>= 50 %	cond.; ISO 527-1, -2; 50 mm/min
Elongation at Yield	4.0 %	4.0 %	d.a.m.; ISO 527-1, -2; 50 mm/min
	25 %	25 %	cond.; ISO 527-1, -2; 50 mm/min
Tensile Modulus	0.800 GPa	116 ksi	cond.; ISO 527-1, -2; 1 mm/min
	2.80 GPa	406 ksi	d.a.m.; ISO 527-1, -2; 1 mm/min
Flexural Strength	20.0 MPa @Strain 3.50 %	2900 psi @Strain 3.50 %	cond., 2 mm/min; ISO 178-A
	90.0 MPa @Strain 3.50 %	13100 psi @Strain 3.50 %	d.a.m., 2 mm/min; ISO 178-A
Flexural Modulus	0.700 GPa	102 ksi	cond., 2 mm/min; ISO 178-A
	2.60 GPa	377 ksi	d.a.m., 2 mm/min; ISO 178-A
Izod Impact, Notched (ISO)	7.00 kJ/mÂ² @Temperature 23.0	3.33 ft-lb/inÂ²	d.a.m.; ISO 180-1A

Mechanical Properties	°C Metric	@Temperature 73.4 °F English	Comments
	7.00 kJ/mÂ²	3.33 ft-lb/inÂ²	d.a.m.; ISO 180-1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	7.50 kJ/mÂ²	3.57 ft-lb/inÂ²	cond.; ISO 180-1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	50.0 kJ/mÂ²	23.8 ft-lb/inÂ²	cond.; ISO 180-1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	NB	NB	d.a.m.; ISO 179-1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	cond.; ISO 179-1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	NB	NB	d.a.m.; ISO 179-1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	NB	NB	cond.; ISO 179-1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	<= 0.500 J/cmÂ²	<= 2.38 ft-lb/inÂ²	cond.; ISO 179-1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	0.500 J/cmÂ²	2.38 ft-lb/inÂ²	d.a.m.; ISO 179-1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.500 J/cmÂ²	2.38 ft-lb/inÂ²	d.a.m.; ISO 179-1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	5.00 J/cmÂ²	23.8 ft-lb/inÂ²	cond.; ISO 179-1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	80.0 Âµm/m-Â°C	44.4 Âµin/in-Â°F	ISO 11359-1, -2
	@Temperature 23.0 -	@Temperature 73.4 -	

Thermal Properties	55.0 Â°C Metric	131 Â°F English	Comments
CTE, linear, Transverse to Flow	80.0 Âµm/m-Â°C @Temperature 23.0 - 55.0 Â°C	44.4 Âµin/in-Â°F @Temperature 73.4 - 131 Â°F	ISO 11359-1, -2
Melting Point	222 Â°C	432 Â°F	10Â°C/min; ISO 11357-1, -3
Deflection Temperature at 0.46 MPa (66 psi)	150 Â°C	302 Â°F	ISO 75-1, -2
Deflection Temperature at 1.8 MPa (264 psi)	50.0 Â°C	122 Â°F	ISO 75-1, -2
Deflection Temperature at 8.0 MPa	40.0 Â°C	104 Â°F	
Vicat Softening Point	200 Â°C @Load 5.10 kg	392 Â°F @Load 11.2 lb	120Â°C/hour; ISO 306
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	
	HB @Thickness 3.20 mm	HB @Thickness 0.126 in	
Oxygen Index	24 %	24 %	Method A; ISO 4589-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	cond.; IEC 60093
	1.00e+14 ohm-cm	1.00e+14 ohm-cm	d.a.m.; IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	cond.; IEC 60093
	1.00e+14 ohm	1.00e+14 ohm	d.a.m.; IEC 60093
Dielectric Constant	3.5 @Frequency 1.00e+6 Hz	3.5 @Frequency 1.00e+6 Hz	d.a.m.; IEC 60250
	3.9 @Frequency 100 Hz	3.9 @Frequency 100 Hz	d.a.m.; IEC 60250
	4.0 @Frequency 1.00e+6 Hz	4.0 @Frequency 1.00e+6 Hz	cond.; IEC 60250
	18 @Frequency 100 Hz	18 @Frequency 100 Hz	cond.; IEC 60250

Electrical Properties	30.0 kV/mm Metric	762 kV/in English	Comments 60243-1
	@Thickness 1.00 mm	@Thickness 0.0394 in	
	35.0 kV/mm	889 kV/in	cond.; IEC 60243-1
	@Thickness 1.00 mm	@Thickness 0.0394 in	
Comparative Tracking Index	600 V	600 V	d.a.m.; Solution A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	260 Â°C	500 Â°F	for test specimens; ISO 294
Mold Temperature	40.0 Â°C	104 Â°F	for test specimens; ISO 294

Descriptive Properties	Value	Comments
ISO Shortname	ISO 1874-PA 6, E, 18-030	

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