






Lanxess Durethan® A 30 S 000000 Nylon 66 (Unverified Data)**

Categories: [Polymer](#); [Thermoplastic](#); [Nylon \(Polyamide PA\)](#); [Nylon 66 \(PA66\)](#); [Nylon 66, Unreinforced](#)

Material Notes: PA 66 standard injection molding-grade, non-reinforced, good demolding, very rapid solidification

Application Examples: plug connectors, terminal blocks, cable clips, bobbins

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.136 g/cc	0.04104 lb/in ³	ISO 1183
Water Absorption	8.5 %	8.5 %	Test Sim. to ISO 62
Moisture Absorption at Equilibrium	2.8 %	2.8 %	23°C/50% R.H.; Test Sim. to ISO 62
Viscosity Number	144 cm ³ /g	1.44 dl/g	ISO 307, 1157, 1628
Melt Flow	75 g/10 min @Load 5.00 kg, Temperature 270 °C	75 g/10 min @Load 11.0 lb, Temperature 518 °F	Calculated from MVR using melt density; ISO 1133
Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	60.0 MPa 95.0 MPa	8700 psi 13800 psi	Conditioned; ISO 527-1/-2 ISO 527-1/-2
Elongation at Yield	4.5 % 18 %	4.5 % 18 %	ISO 527-1/-2 Conditioned; ISO 527-1/-2
Tensile Modulus	1.60 GPa 3.60 GPa	232 ksi 522 ksi	Conditioned; ISO 527-1/-2 ISO 527-1/-2
Charpy Impact Unnotched 	10.0 J/cm ² @Temperature -30.0 °C	47.6 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
	15.0 J/cm ² @Temperature -30.0 °C	71.4 ft-lb/in ² @Temperature -22.0 °F	Conditioned; ISO 179/1eU
	15.0 J/cm ² @Temperature 23.0 °C	71.4 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eU
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	Conditioned; ISO 179/1eU
Charpy Impact, Notched 	<= 1.00 J/cm ² @Temperature -30.0 °C	<= 4.76 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
	<= 1.00 J/cm ² @Temperature -30.0 °C	<= 4.76 ft-lb/in ² @Temperature -22.0 °F	Conditioned; ISO 179/1eA
	<= 1.00 J/cm ² @Temperature 23.0 °C	<= 4.76 ft-lb/in ² @Temperature 73.4 °F	ISO 179/1eA
	1.20 J/cm ² @Temperature 23.0 °C	5.71 ft-lb/in ² @Temperature 73.4 °F	Conditioned; ISO 179/1eA
Impact 	4620 5505 6143 @Temperature -30.0 °C	4620 5505 6143 @Temperature -22.0 °F	Puncture maximum force, Conditioned (N); ISO 6603-2 Puncture maximum force (N); ISO 6603-2 Puncture maximum force (N); ISO 6603-2
Puncture Energy 	27.0 J 30.0 J 26.0 J @Temperature -30.0 °C	19.9 ft-lb 22.1 ft-lb 19.2 ft-lb @Temperature -22.0 °F	Conditioned; ISO 6603-2 ISO 6603-2 ISO 6603-2
	26.0 J @Temperature -30.0 °C	19.2 ft-lb @Temperature -22.0 °F	Conditioned; ISO 6603-2
Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm 1.00e+15 ohm-cm	1.00e+12 ohm-cm 1.00e+15 ohm-cm	Conditioned; IEC 60093 IEC 60093
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	IEC 60093
Dielectric Constant 	3.4 @Frequency 1.00e+6 Hz	3.4 @Frequency 1.00e+6 Hz	IEC 60250
	3.8 @Frequency 100 Hz	3.8 @Frequency 100 Hz	IEC 60250

Dielectric Strength	4.0	4.0	Conditioned; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dissipation Factor	10	10	Conditioned; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	30.0 kV/mm	762 kV/in	IEC 60243-1
	30.0 kV/mm	762 kV/in	Conditioned; IEC 60243-1
	0.0060	0.0060	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.018	0.018	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.070	0.070	Conditioned; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	0.14	0.14	Conditioned; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	575 V	575 V	IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.0 µm/m-°C	38.9 µm/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	80.0 µm/m-°C	44.4 µm/in-°F	ISO 11359-1/-2
Melting Point	263 °C	505 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	214 °C	417 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	75.0 °C	167 °F	ISO 75-1/-2
Deflection Temperature at 8.0 MPa	55.0 °C	131 °F	ISO 75-1/-2
Vicat Softening Point	230 °C	446 °F	50°C/h 50N; ISO 306
Flammability, UL94	V-2	V-2	IEC 60695-11-10
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Oxygen Index	V-2	V-2	IEC 60695-11-10
	@Thickness 3.20 mm	@Thickness 0.126 in	
	26 %	26 %	ISO 4589-1/-2

Descriptive Properties

Additives	Release agent
Form	Pellets
ISO Short Name	ISO 1874-PA 66,MR,14-040
Processing	Injection molding
Region	Asia Pacific
	Europe
	Near East/Africa
	North America
	South and Central America

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