

Overview of materials for Nylon 11, Cable Sheathing Grade

Category : Polymer , Thermoplastic , Nylon , Nylon 11 , Nylon 11, Cable Sheathing Grade

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 11, Cable Sheathing Grade". Each property range of values reported is minimum and maximum values of appropriate MatWeb entries. The comments report the average value, and number of data points used to calculate the average. The values are not necessarily typical of any specific grade, especially less common values and those that can be most affected by additives or processing methods.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Overview-of-materials-for-Nylon-11-Cable-Sheathing-Grade.php

Physical Properties	Metric	English	Comments
Density	1.03 - 1.11 g/cc	0.0372 - 0.0401 lb/in ³	Average value: 1.06 g/cc Grade Count:8
Water Absorption	1.50 - 1.96 %	1.50 - 1.96 %	Average value: 1.74 % Grade Count:7
Melt Flow	27.5 - 95.1 g/10 min	27.5 - 95.1 g/10 min	Average value: 50.8 g/10 min Grade Count:6

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	25.0 - 56.0 MPa	3630 - 8120 psi	Average value: 39.7 MPa Grade Count:10
Elongation at Break	50.0 %	50.0 %	Average value: 50.0 % Grade Count:6
Elongation at Yield	5.00 - 10.0 %	5.00 - 10.0 %	Average value: 6.00 % Grade Count:6
Modulus of Elasticity	0.330 - 2.07 GPa	47.9 - 300 ksi	Average value: 1.22 GPa Grade Count:10
Charpy Impact Unnotched	1000 J/cm ² - NB	4760 ft-lb/in ² - NB	Grade Count:4
	0.850 - 999.9 J/cm ² @Temperature -30.0 - - 30.0 °C	4.05 - 4759 ft-lb/in ² @Temperature -22.0 - - 22.0 °F	Average value: 0.850 J/cm ² Grade Count:3
Charpy Impact, Notched	0.420 - 1000 J/cm ²	2.00 - 4760 ft-lb/in ²	Average value: 0.770 J/cm ² Grade Count:5
	0.420 - 1.06 J/cm ² @Temperature -30.0 - - 30.0 °C	2.00 - 5.04 ft-lb/in ² @Temperature -22.0 - - 22.0 °F	Average value: 0.712 J/cm ² Grade Count:5

Thermal Properties	Metric	English	Comments
CTE, linear	90.0 - 102 µm/m-°C	50.0 - 56.7 µin/in-°F	Average value: 97.3 µm/m-°C Grade Count:3
Melting Point	182 - 187 °C	360 - 369 °F	Average value: 184 °C Grade Count:8

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	45.0 - 55.0 °C	113 - 131 °F	Average value: 49.8 °C Grade Count: 4
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:8
Oxygen Index	25.0 - 33.0 %	25.0 - 33.0 %	Average value: 29.3 % Grade Count:6

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+12 - 1.00e+15 ohm-cm	1.00e+12 - 1.00e+15 ohm-cm	Average value: 3.00e+14 ohm-cm Grade Count:4
Surface Resistance	1.00e+14 - 1.00e+15 ohm	1.00e+14 - 1.00e+15 ohm	Average value: 4.00e+14 ohm Grade Count:3
Dielectric Strength	20.0 - 30.0 kV/mm	508 - 762 kV/in	Average value: 26.2 kV/mm Grade Count:3
Dissipation Factor	0.000306 - 0.000330	0.000306 - 0.000330	Average value: 0.000320 Grade Count:3
Comparative Tracking Index	600 V	600 V	Average value: 600 V Grade Count:3

Processing Properties	Metric	English	Comments
Melt Temperature	190 - 250 °C	374 - 482 °F	Average value: 220 °C Grade Count:4
Drying Temperature	80.0 - 90.0 °C	176 - 194 °F	Average value: 85.0 °C Grade Count:4
Moisture Content	0.100 %	0.100 %	Average value: 0.100 % Grade Count:4

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