

## Overview of materials for Nylon 11, Flexible Tubing Grade

Category : Polymer , Thermoplastic , Nylon , Nylon 11 , Nylon 11, Flexible Tubing Grade

### Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 11, Flexible Tubing 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-Flexible-Tubing-Grade.php](http://www.lookpolymers.com/polymer_Overview-of-materials-for-Nylon-11-Flexible-Tubing-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.00 - 1.08 g/cc	0.0361 - 0.0390 lb/in <sup>3</sup>	Average value: 1.04 g/cc Grade Count:12
Water Absorption	1.30 - 1.80 %	1.30 - 1.80 %	Average value: 1.52 % Grade Count:5
Melt Flow	1.00 - 15.5 g/10 min	1.00 - 15.5 g/10 min	Average value: 6.43 g/10 min Grade Count:14

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	15.0 - 33.0 MPa	2180 - 4790 psi	Average value: 25.1 MPa Grade Count:14
Elongation at Break	50.0 %	50.0 %	Average value: 50.0 % Grade Count:14
Elongation at Yield	20.0 - 38.0 %	20.0 - 38.0 %	Average value: 30.5 % Grade Count:8
Modulus of Elasticity	0.165 - 0.610 GPa	23.9 - 88.5 ksi	Average value: 0.399 GPa Grade Count:14
Charpy Impact Unnotched	NB	NB	Grade Count:10
Charpy Impact, Notched	3.80 J/cm <sup>2</sup> - NB	18.1 ft-lb/in <sup>2</sup> - NB	Average value: 4.65 J/cm <sup>2</sup> Grade Count:10
	0.330 - 1.22 J/cm <sup>2</sup> @Temperature -30.0 - - 30.0 °C	1.57 - 5.81 ft-lb/in <sup>2</sup> @Temperature -22.0 - - 22.0 °F	Average value: 0.726 J/cm <sup>2</sup> Grade Count:10

Thermal Properties	Metric	English	Comments
CTE, linear	90.0 - 150 µm/m-°C	50.0 - 83.3 µin/in-°F	Average value: 113 µm/m-°C Grade Count:7
Melting Point	150 - 183 °C	302 - 361 °F	Average value: 172 °C Grade Count:12
Deflection Temperature at 0.46 MPa (66 psi)	69.0 - 147 °C	156 - 297 °F	Average value: 111 °C Grade Count:5
Deflection Temperature at 1.8 MPa	36.0 - 55.0 °C	96.8 - 131 °F	Average value: 43.1 °C Grade Count:7

<small>(264 psi)</small> Thermal Properties	Metric	English	Comments
Vicat Softening Point	95.0 - 180 °C	203 - 356 °F	Average value: 146 °C Grade Count:6
Flammability, UL94	HB - V-2	HB - V-2	Grade Count:12

Optical Properties	Metric	English	Comments
Transmission, Visible	80.0 %	80.0 %	Average value: 80.0 % Grade Count:4

Electrical Properties	Metric	English	Comments
Electrical Resistivity	5.00e+9 - 1.00e+12 ohm-cm	5.00e+9 - 1.00e+12 ohm-cm	Average value: 4.33e+11 ohm-cm Grade Count:5
Surface Resistance	5.00e+11 - 4.00e+14 ohm	5.00e+11 - 4.00e+14 ohm	Average value: 1.11e+14 ohm Grade Count:4
Dielectric Strength	18.0 - 34.0 kV/mm	457 - 864 kV/in	Average value: 26.2 kV/mm Grade Count:5

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