

## Overview of materials for Nylon 46, Lubricated + Glass Fiber Reinforced

Category : Polymer , Thermoplastic , Nylon , Nylon 46 , Nylon 46, Lubricated + Glass Fiber Reinforced

### Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 46, Lubricated + Glass Fiber Reinforced". 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-46-Lubricated-Glass-Fiber-Reinforced.php](http://www.lookpolymers.com/polymer_Overview-of-materials-for-Nylon-46-Lubricated-Glass-Fiber-Reinforced.php)

Physical Properties	Metric	English	Comments
Density	1.43 - 1.69 g/cc	0.0517 - 0.0611 lb/in <sup>3</sup>	Average value: 1.53 g/cc Grade Count:13
Water Absorption	0.900 - 2.00 %	0.900 - 2.00 %	Average value: 1.59 % Grade Count:8
Linear Mold Shrinkage	0.00200 - 0.00750 cm/cm	0.00200 - 0.00750 in/in	Average value: 0.00533 cm/cm Grade Count:9

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	110 - 205 MPa	16000 - 29700 psi	Average value: 159 MPa Grade Count:7
Tensile Strength, Yield	82.7 - 179 MPa	12000 - 26000 psi	Average value: 138 MPa Grade Count:6
Elongation at Break	2.70 - 7.00 %	2.70 - 7.00 %	Average value: 4.30 % Grade Count:10
Elongation at Yield	2.00 - 3.00 %	2.00 - 3.00 %	Average value: 2.62 % Grade Count:3
Modulus of Elasticity	4.10 - 11.0 GPa	595 - 1600 ksi	Average value: 8.69 GPa Grade Count:7
Flexural Yield Strength	110 - 279 MPa	16000 - 40500 psi	Average value: 207 MPa Grade Count:9
Flexural Modulus	2.96 - 9.65 GPa	430 - 1400 ksi	Average value: 7.58 GPa Grade Count:11
Izod Impact, Notched	0.641 - 1.92 J/cm	1.20 - 3.60 ft-lb/in	Average value: 1.15 J/cm Grade Count:7
Izod Impact, Notched (ISO)	8.00 - 8.00 kJ/m <sup>2</sup> @Temperature -40.0 - - 40.0 °C	3.81 - 3.81 ft-lb/in <sup>2</sup> @Temperature -40.0 - - 40.0 °F	Average value: 8.00 kJ/m <sup>2</sup> Grade Count:2
Charpy Impact, Notched	0.700 - 1.50 J/cm <sup>2</sup>	3.33 - 7.14 ft-lb/in <sup>2</sup>	Average value: 1.15 J/cm <sup>2</sup> Grade Count:4

Thermal Properties	Metric	English	Comments
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Thermal Properties	Metric	English	Comments
	79.2 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	4.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	Value: 33.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ Grade Count:7
Melting Point	295 $^\circ\text{C}$	563 $^\circ\text{F}$	Average value: 295 $^\circ\text{C}$ Grade Count:4
Deflection Temperature at 1.8 MPa (264 psi)	274 - 290 $^\circ\text{C}$	525 - 554 $^\circ\text{F}$	Average value: 284 $^\circ\text{C}$ Grade Count:10
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:5

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+7 - 1.00e+14 ohm-cm	1.00e+7 - 1.00e+14 ohm-cm	Average value: 4.32e+13 ohm-cm Grade Count:7
Dielectric Strength	23.6 kV/mm	600 kV/in	Average value: 23.6 kV/mm Grade Count:5

Processing Properties	Metric	English	Comments
Processing Temperature	293 - 321 $^\circ\text{C}$	560 - 610 $^\circ\text{F}$	Average value: 309 $^\circ\text{C}$ Grade Count:3
Mold Temperature	79.4 - 149 $^\circ\text{C}$	175 - 300 $^\circ\text{F}$	Average value: 125 $^\circ\text{C}$ Grade Count:3

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