

## Overview of materials for Nylon 612, Carbon Fiber Filler

Category : Polymer , Thermoplastic , Nylon , Nylon 612 , Nylon 612, Carbon Fiber Filler

### Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 612, Carbon Fiber Filler". 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-612-Carbon-Fiber-Filler.php](http://www.lookpolymers.com/polymer_Overview-of-materials-for-Nylon-612-Carbon-Fiber-Filler.php)

Physical Properties	Metric	English	Comments
Density	1.09 - 1.55 g/cc	0.0394 - 0.0560 lb/in <sup>3</sup>	Average value: 1.28 g/cc Grade Count:34
Filler Content	8.00 - 40.0 %	8.00 - 40.0 %	Average value: 22.3 % Grade Count:24
Water Absorption	0.0800 - 0.300 %	0.0800 - 0.300 %	Average value: 0.183 % Grade Count:22
Additive Loading	20.0 - 30.0 %	20.0 - 30.0 %	Average value: 26.7 % Grade Count:3
Linear Mold Shrinkage	0.000500 - 0.00900 cm/cm	0.000500 - 0.00900 in/in	Average value: 0.00262 cm/cm Grade Count:34

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	106 - 120	106 - 120	Average value: 117 Grade Count:12
Tensile Strength, Ultimate	96.5 - 231 MPa	14000 - 33500 psi	Average value: 170 MPa Grade Count:30
Tensile Strength, Yield	108 - 200 MPa	15700 - 29000 psi	Average value: 133 MPa Grade Count:4
Elongation at Break	1.00 - 5.00 %	1.00 - 5.00 %	Average value: 2.71 % Grade Count:34
Modulus of Elasticity	6.55 - 27.6 GPa	950 - 4000 ksi	Average value: 16.2 GPa Grade Count:27
Flexural Yield Strength	138 - 348 MPa	20000 - 50500 psi	Average value: 251 MPa Grade Count:34
Flexural Modulus	5.52 - 22.4 GPa	800 - 3250 ksi	Average value: 12.9 GPa Grade Count:34
Izod Impact, Notched	0.427 - 1.28 J/cm	0.800 - 2.40 ft-lb/in	Average value: 0.843 J/cm Grade Count:34
Izod Impact, Unnotched	2.40 - 10.7 J/cm	4.50 - 20.0 ft-lb/in	Average value: 6.27 J/cm Grade Count:31

Thermal Properties	Metric	English	Comments
CTE, linear	18.0 - 19.8 $\mu\text{m}/\text{m}\cdot\text{°C}$	10.0 - 11.0 $\mu\text{in}/\text{in}\cdot\text{°F}$	Average value: 19.4 $\mu\text{m}/\text{m}\cdot\text{°C}$ Grade Count:5
Deflection Temperature at 0.46 MPa (66 psi)	144 - 221 $\text{°C}$	292 - 430 $\text{°F}$	Average value: 205 $\text{°C}$ Grade Count:19
Deflection Temperature at 1.8 MPa (264 psi)	139 - 227 $\text{°C}$	283 - 440 $\text{°F}$	Average value: 206 $\text{°C}$ Grade Count:31
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:27

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.100 - 1.00e+8 ohm-cm	0.100 - 1.00e+8 ohm-cm	Average value: 4.37e+6 ohm-cm Grade Count:26
Surface Resistance	100 - 1.00e+10 ohm	100 - 1.00e+10 ohm	Average value: 1.68e+7 ohm Grade Count:13

Processing Properties	Metric	English	Comments
Processing Temperature	252 - 279 $\text{°C}$	485 - 535 $\text{°F}$	Average value: 266 $\text{°C}$ Grade Count:17
Melt Temperature	249 - 285 $\text{°C}$	480 - 545 $\text{°F}$	Average value: 267 $\text{°C}$ Grade Count:10
Mold Temperature	60.0 - 93.3 $\text{°C}$	140 - 200 $\text{°F}$	Average value: 76.7 $\text{°C}$ Grade Count:27
Drying Temperature	79.4 $\text{°C}$	175 $\text{°F}$	Average value: 79.4 $\text{°C}$ Grade Count:10
Moisture Content	0.200 %	0.200 %	Average value: 0.200 % Grade Count:10
Dew Point	-17.8 $\text{°C}$	0.000 $\text{°F}$	Average value: -17.8 $\text{°C}$ Grade Count:10
Injection Pressure	68.9 - 124 MPa	10000 - 18000 psi	Average value: 96.5 MPa Grade Count:27

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China