

Overview of materials for Nylon 12, 40% Glass Fiber Filled

Category : Polymer , Thermoplastic , Nylon , Nylon 12 , Nylon 12, 40% Glass Fiber Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 12, 40% Glass Fiber Filled". Specific grades with glass content between 35% and 44% are included. 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-12-40-Glass-Fiber-Filled.php

Physical Properties	Metric	English	Comments
Density	1.29 - 1.39 g/cc	0.0466 - 0.0502 lb/in ³	Average value: 1.34 g/cc Grade Count:8
Filler Content	35.0 - 43.0 %	35.0 - 43.0 %	Average value: 39.6 % Grade Count:5
Water Absorption	0.140 - 1.50 %	0.140 - 1.50 %	Average value: 0.697 % Grade Count:4
Linear Mold Shrinkage	0.00100 - 0.00400 cm/cm	0.00100 - 0.00400 in/in	Average value: 0.00243 cm/cm Grade Count:5

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	114 - 145 MPa	16500 - 21000 psi	Average value: 131 MPa Grade Count:8
Elongation at Break	2.00 - 5.00 %	2.00 - 5.00 %	Average value: 3.50 % Grade Count:8
Modulus of Elasticity	7.58 - 13.3 GPa	1100 - 1930 ksi	Average value: 9.64 GPa Grade Count:8
Flexural Yield Strength	162 - 241 MPa	23500 - 35000 psi	Average value: 195 MPa Grade Count:5
Flexural Modulus	6.21 - 8.28 GPa	900 - 1200 ksi	Average value: 7.58 GPa Grade Count:5
Izod Impact, Notched	1.71 - 3.74 J/cm	3.20 - 7.01 ft-lb/in	Average value: 2.30 J/cm Grade Count:5
Izod Impact, Unnotched	9.08 - 13.3 J/cm	17.0 - 25.0 ft-lb/in	Average value: 10.7 J/cm Grade Count:5
Charpy Impact Unnotched	4.50 - 7.12 J/cm ²	21.4 - 33.9 ft-lb/in ²	Average value: 6.16 J/cm ² Grade Count:3
	4.50 - 7.25 J/cm ² @Temperature -30.0 - 30.0 °C	21.4 - 34.5 ft-lb/in ² @Temperature -22.0 - 86.0 °F	Average value: 6.21 J/cm ² Grade Count:3
Charpy Impact, Notched	1.26 - 1.40 J/cm ²	6.00 - 6.66 ft-lb/in ²	Average value: 1.31 J/cm ² Grade

Mechanical Properties	Metric	English	Count:3 Comments
	1.06 - 1.30 J/cm ²	5.04 - 6.19 ft-lb/in ²	
	@Temperature -30.0 - 30.0 °C	@Temperature -22.0 - 86.0 °F	Average value: 1.14 J/cm ² Grade Count:3

Thermal Properties	Metric	English	Comments
CTE, linear	20.0 - 32.4 µm/m-°C	11.1 - 18.0 µin/in-°F	Average value: 27.5 µm/m-°C Grade Count:3
Deflection Temperature at 0.46 MPa (66 psi)	135 - 177 °C	275 - 350 °F	Average value: 165 °C Grade Count:4
Deflection Temperature at 1.8 MPa (264 psi)	125 - 171 °C	257 - 340 °F	Average value: 159 °C Grade Count:4
Flammability, UL94	HB	HB	Grade Count:7

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+12 - 1.00e+14 ohm-cm	1.00e+12 - 1.00e+14 ohm-cm	Average value: 5.27e+13 ohm-cm Grade Count:4

Processing Properties	Metric	English	Comments
Processing Temperature	216 - 266 °C	420 - 510 °F	Average value: 241 °C Grade Count:3
Mold Temperature	65.6 - 104 °C	150 - 220 °F	Average value: 85.0 °C Grade Count:4
Injection Pressure	68.9 - 103 MPa	10000 - 15000 psi	Average value: 86.2 MPa Grade Count:4

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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