

Overview of materials for Nylon 66/6, 20% Glass Fiber Reinforced

Category : Polymer , Thermoplastic , Nylon , Nylon 6/66 , Nylon 66/6, 20% Glass Fiber Reinforced

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 66/6, 20% Glass Fiber Reinforced". Specific grades with glass content between 15% and 24% 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-666-20-Glass-Fiber-Reinforced.php

Physical Properties	Metric	English	Comments
Density	1.20 - 1.37 g/cc	0.0434 - 0.0495 lb/in ³	Average value: 1.26 g/cc Grade Count:19
Water Absorption	1.30 - 8.00 %	1.30 - 8.00 %	Average value: 5.51 % Grade Count:8
Moisture Absorption at Equilibrium	2.00 - 3.00 %	2.00 - 3.00 %	Average value: 2.36 % Grade Count:8
Linear Mold Shrinkage	0.00100 - 0.0140 cm/cm	0.00100 - 0.0140 in/in	Average value: 0.00485 cm/cm Grade Count:13
Linear Mold Shrinkage, Transverse	0.00190 - 0.0100 cm/cm	0.00190 - 0.0100 in/in	Average value: 0.00715 cm/cm Grade Count:10
Melt Flow	3.00 - 157 g/10 min	3.00 - 157 g/10 min	Average value: 80.6 g/10 min Grade Count:4

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	77.0 - 88.0	77.0 - 88.0	Average value: 82.3 Grade Count:6
Ball Indentation Hardness	75.0 - 210 MPa	10900 - 30500 psi	Average value: 141 MPa Grade Count:6
Tensile Strength, Ultimate	55.0 - 135 MPa	7980 - 19600 psi	Average value: 104 MPa Grade Count:15
Tensile Strength, Yield	12.0 - 95.0 MPa	1740 - 13800 psi	Average value: 59.4 MPa Grade Count:5
Elongation at Break	2.00 - 10.0 %	2.00 - 10.0 %	Average value: 4.87 % Grade Count:13
Elongation at Yield	3.00 - 10.0 %	3.00 - 10.0 %	Average value: 5.82 % Grade Count:7
Modulus of Elasticity	2.70 - 8.56 GPa	392 - 1240 ksi	Average value: 5.21 GPa Grade Count:19
Flexural Yield Strength	155 - 200 MPa	22500 - 29000 psi	Average value: 178 MPa Grade Count:4
Flexural Modulus			Average value: 6.31 GPa Grade

Mechanical Properties	4.90 - 8.32 GPa Metric	711 - 1210 ksi English	Count:4 Comments
Izod Impact, Notched (ISO)	6.00 - 16.0 kJ/m ²	2.86 - 7.61 ft-lb/in ²	Average value: 10.2 kJ/m ² Grade Count:5
Charpy Impact Unnotched	2.50 - 9.50 J/cm ²	11.9 - 45.2 ft-lb/in ²	Average value: 5.48 J/cm ² Grade Count:19
	2.50 - 7.00 J/cm ² @Temperature -40.0 - 30.0 °C	11.9 - 33.3 ft-lb/in ² @Temperature -40.0 - 86.0 °F	Average value: 4.64 J/cm ² Grade Count:11
Charpy Impact, Notched	0.400 - 1.70 J/cm ²	1.90 - 8.09 ft-lb/in ²	Average value: 0.885 J/cm ² Grade Count:17
	0.400 - 0.800 J/cm ² @Temperature -30.0 - 30.0 °C	1.90 - 3.81 ft-lb/in ² @Temperature -22.0 - 86.0 °F	Average value: 0.521 J/cm ² Grade Count:9

Thermal Properties	Metric	English	Comments
CTE, linear	20.0 - 45.0 µm/m-°C	11.1 - 25.0 µin/in-°F	Average value: 32.0 µm/m-°C Grade Count:10
CTE, linear, Transverse to Flow	75.0 - 110 µm/m-°C	41.7 - 61.1 µin/in-°F	Average value: 91.7 µm/m-°C Grade Count:6
Melting Point	222 - 310 °C	432 - 590 °F	Average value: 253 °C Grade Count:17
Maximum Service Temperature, Air	90.0 - 240 °C	194 - 464 °F	Average value: 154 °C Grade Count:7
Deflection Temperature at 0.46 MPa (66 psi)	210 - 215 °C	410 - 419 °F	Average value: 213 °C Grade Count:3
Deflection Temperature at 1.8 MPa (264 psi)	180 - 270 °C	356 - 518 °F	Average value: 220 °C Grade Count:16
Deflection Temperature at 8.0 MPa	60.0 - 100 °C	140 - 212 °F	Average value: 78.3 °C Grade Count:6
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:10

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+11 - 1.00e+15 ohm-cm	1.00e+11 - 1.00e+15 ohm-cm	Average value: 2.88e+14 ohm-cm Grade Count:12
Surface Resistance	1.00e+10 - 1.00e+15 ohm	1.00e+10 - 1.00e+15 ohm	Average value: 1.67e+14 ohm Grade Count:6
Dielectric Strength	25.0 - 40.0 kV/mm	635 - 1020 kV/in	Average value: 31.6 kV/mm Grade Count:10
Comparative Tracking Index	500 - 600 V	500 - 600 V	Average value: 572 V Grade Count:14

Processing Properties	Metric	English	Comments
-----------------------	--------	---------	----------

Melt Temperature Processing Properties	225 - 310 °C Metric	437 - 590 °F English	Average value: 269 °C Grade Count:6 Comments
Mold Temperature	50.0 - 100 °C	122 - 212 °F	Average value: 73.0 °C Grade Count:5
Drying Temperature	75.0 - 85.0 °C	167 - 185 °F	Average value: 80.0 °C Grade Count:4
Moisture Content	0.150 - 0.200 %	0.150 - 0.200 %	Average value: 0.167 % Grade Count:3
	2.30 - 2.30 %	2.30 - 2.30 %	Average value: 2.30 % Grade Count:2
	@Temperature 70.0 - 70.0 °C	@Temperature 158 - 158 °F	

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