

Overview of materials for Nylon 66/6, 30% Glass Fiber Reinforced

Category : Polymer , Thermoplastic , Nylon , Nylon 6/66 , Nylon 66/6, 30% Glass Fiber Reinforced

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 66/6, 30% Glass Fiber Reinforced".

Specific grades with glass content between 25% and 34% 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-666-30-Glass-Fiber-Reinforced.php

Physical Properties	Metric	English	Comments
Density	1.23 - 1.47 g/cc	0.0444 - 0.0531 lb/in³	Average value: 1.37 g/cc Grade Count:53
Filler Content	30.0 - 33.0 %	30.0 - 33.0 %	Average value: 30.9 % Grade Count:10
Water Absorption	0.500 - 7.00 %	0.500 - 7.00 %	Average value: 3.70 % Grade Count:33
Moisture Absorption at Equilibrium	1.00 - 2.50 %	1.00 - 2.50 %	Average value: 1.89 % Grade Count:27
Water Absorption at Saturation	3.50 - 6.50 %	3.50 - 6.50 %	Average value: 5.20 % Grade Count:5
Linear Mold Shrinkage	0.00100 - 0.0200 cm/cm	0.00100 - 0.0200 in/in	Average value: 0.00367 cm/cm Grade Count:47
Linear Mold Shrinkage, Transverse	0.00500 - 0.0130 cm/cm	0.00500 - 0.0130 in/in	Average value: 0.00821 cm/cm Grade Count:37
Melt Flow	2.00 - 45.0 g/10 min	2.00 - 45.0 g/10 min	Average value: 17.3 g/10 min Grade Count:3

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	80.0 - 270 MPa	11600 - 39200 psi	Average value: 180 MPa Grade Count:22
Tensile Strength, Ultimate	2.20 - 361 MPa	319 - 52400 psi	Average value: 143 MPa Grade Count:46
	28.5 - 114 MPa	4130 - 16500 psi	Average value: 61.8 MPa Grade Count:1
	@Temperature 150 - 220 °C	@Temperature 302 - 428 °F	
Tensile Strength, Yield	70.0 - 184 MPa	10200 - 26700 psi	Average value: 121 MPa Grade Count:13
Elongation at Break	2.00 - 35.0 %	2.00 - 35.0 %	Average value: 5.00 % Grade Count:47
	2.50 - 3.00 %	2.50 - 3.00 %	Average value: 2.75 % Grade Count:1

Mechanical Properties	Metric @Temperature 210 - 230 °C	English @Temperature 410 - 440 °F	Comments
	2.50 - 3.00 % @Time 1.80e+6 - 1.80e+7 sec	2.50 - 3.00 % @Time 500 - 5000 hour	Average value: 2.75 % Grade Count:1
Elongation at Yield	4.00 - 6.00 %	4.00 - 6.00 %	Average value: 4.56 % Grade Count:7
Modulus of Elasticity	1.80 - 11.0 GPa	261 - 1600 ksi	Average value: 7.95 GPa Grade Count:43
Flexural Yield Strength	56.0 - 275 MPa	8120 - 39900 psi	Average value: 205 MPa Grade Count:24
Flexural Modulus	3.70 - 9.50 GPa	537 - 1380 ksi	Average value: 7.89 GPa Grade Count:23
Poissons Ratio	0.370 - 0.400	0.370 - 0.400	Average value: 0.390 Grade Count:3
Izod Impact, Notched	0.550 - 1.50 J/cm	1.03 - 2.81 ft-lb/in	Average value: 1.04 J/cm Grade Count:4
Izod Impact, Notched (ISO)	6.20 - 22.0 kJ/m ²	2.95 - 10.5 ft-lb/in ²	Average value: 12.0 kJ/m ² Grade Count:12
	12.0 - 19.0 kJ/m ² @Temperature -30.0 - - 30.0 °C	5.71 - 9.04 ft-lb/in ² @Temperature -22.0 - - 22.0 °F	Average value: 15.5 kJ/m ² Grade Count:2
Charpy Impact Unnotched	2.50 J/cm ² - NB	11.9 ft-lb/in ² - NB	Average value: 6.80 J/cm ² Grade Count:41
	2.40 J/cm ² - NB @Temperature -40.0 - 30.0 °C	11.4 ft-lb/in ² - NB @Temperature -40.0 - 86.0 °F	Average value: 5.44 J/cm ² Grade Count:35
Charpy Impact, Notched	0.400 - 4.50 J/cm ²	1.90 - 21.4 ft-lb/in ²	Average value: 1.23 J/cm ² Grade Count:39
	0.200 - 2.50 J/cm ² @Temperature -30.0 - 30.0 °C	0.952 - 11.9 ft-lb/in ² @Temperature -22.0 - 86.0 °F	Average value: 0.832 J/cm ² Grade Count:29

Thermal Properties	Metric	English	Comments
CTE, linear	1.50 - 80.0 µm/m-°C	0.833 - 44.4 µin/in-°F	Average value: 23.9 µm/m-°C Grade Count:23
CTE, linear, Transverse to Flow	10.0 - 110 µm/m-°C	5.56 - 61.1 µin/in-°F	Average value: 66.2 µm/m-°C Grade Count:21
Melting Point	200 - 310 °C	392 - 590 °F	Average value: 260 °C Grade Count:44
Maximum Service Temperature, Air	90.0 - 250 °C	194 - 482 °F	Average value: 164 °C Grade Count:24
Deflection Temperature at 0.46 MPa (66 psi)	215 - 257 °C	419 - 495 °F	Average value: 239 °C Grade Count:11

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	70.0 - 285 °C	158 - 545 °F	Average value: 224 °C Grade Count:47
Deflection Temperature at 8.0 MPa	50.0 - 204 °C	122 - 399 °F	Average value: 141 °C Grade Count:20
Vicat Softening Point	230 - 252 °C	446 - 486 °F	Average value: 244 °C Grade Count:3
UL RTI, Electrical	65.0 - 140 °C	149 - 284 °F	Average value: 106 °C Grade Count:4
UL RTI, Mechanical with Impact	65.0 - 105 °C	149 - 221 °F	Average value: 81.0 °C Grade Count:4
UL RTI, Mechanical without Impact	65.0 - 140 °C	149 - 284 °F	Average value: 98.0 °C Grade Count:4
Flammability, UL94	HB - 5VA	HB - 5VA	Grade Count:32
Oxygen Index	32.0 - 35.0 %	32.0 - 35.0 %	Average value: 33.5 % Grade Count:4
Glow Wire Test	650 - 960 °C	1200 - 1760 °F	Average value: 865 °C Grade Count:7

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+10 - 1.00e+15 ohm-cm	1.00e+10 - 1.00e+15 ohm-cm	Average value: 1.43e+14 ohm-cm Grade Count:29
Surface Resistance	1.00e+10 - 1.00e+15 ohm	1.00e+10 - 1.00e+15 ohm	Average value: 4.88e+13 ohm Grade Count:23
Dielectric Strength	21.0 - 60.0 kV/mm	533 - 1520 kV/in	Average value: 31.3 kV/mm Grade Count:20
Dissipation Factor	0.0200	0.0200	Average value: 0.0200 Grade Count:4
Comparative Tracking Index	250 - 650 V	250 - 650 V	Average value: 534 V Grade Count:32
Hot Wire Ignition, HWI	120 sec	120 sec	Average value: 120 sec Grade Count:3
High Amp Arc Ignition, HAI	120 arcs	120 arcs	Average value: 120 arcs Grade Count:3

Processing Properties	Metric	English	Comments
Nozzle Temperature	240 - 310 °C	464 - 590 °F	Average value: 279 °C Grade Count:7
Melt Temperature	225 - 310 °C	437 - 590 °F	Average value: 272 °C Grade Count:13
Mold Temperature	60.0 - 110 °C	140 - 230 °F	Average value: 83.9 °C Grade Count:12
Drying Temperature	79.4 - 90.0 °C	175 - 194 °F	Average value: 80.8 °C Grade Count:12
Moisture Content	0.0500 - 0.200 %	0.0500 - 0.200 %	Average value: 0.171 % Grade Count:5
	1.40 - 1.90 %	1.40 - 1.90 %	Average value: 1.65 % Grade Count:4
	@Temperature 70.0 -	@Temperature 158 -	

Processing Properties	70.0 °C Metric	158 °F English	Comments
Injection Pressure	34.5 - 138 MPa	5000 - 20000 psi	Average value: 88.7 MPa Grade Count:3

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