

Overview of materials for Nylon 66/Nylon 6 Blend, Glass Fiber Filled

Category : Polymer , Thermoplastic , Nylon , Nylon 6/66 , Nylon 66/Nylon 6 Blend, Glass Fiber Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 66/Nylon 6 Blend, Glass Fiber Filled". 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-66Nylon-6-Blend-Glass-Fiber-Filled.php

Physical Properties	Metric	English	Comments
Density	1.18 - 1.58 g/cc	0.0426 - 0.0571 lb/in ³	Average value: 1.35 g/cc Grade Count:14
	1.24 - 1.24 g/cc @Temperature 295 - 295 °C	0.0448 - 0.0448 lb/in ³ @Temperature 563 - 563 °F	Average value: 1.24 g/cc Grade Count:1
Water Absorption	1.20 - 6.80 %	1.20 - 6.80 %	Average value: 3.80 % Grade Count:8
Moisture Absorption at Equilibrium	1.70 - 2.70 %	1.70 - 2.70 %	Average value: 2.17 % Grade Count:4
Linear Mold Shrinkage	0.00100 - 0.0140 cm/cm	0.00100 - 0.0140 in/in	Average value: 0.00631 cm/cm Grade Count:12
Linear Mold Shrinkage, Transverse	0.00560 - 0.0140 cm/cm	0.00560 - 0.0140 in/in	Average value: 0.00853 cm/cm Grade Count:3

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	80.0 - 230 MPa	11600 - 33400 psi	Average value: 141 MPa Grade Count:12
Elongation at Break	2.40 - 16.0 %	2.40 - 16.0 %	Average value: 5.03 % Grade Count:13
Modulus of Elasticity	3.40 - 17.0 GPa	493 - 2470 ksi	Average value: 8.25 GPa Grade Count:10
	0.654 - 10.89 GPa @Temperature -20.0 - 250 °C	94.9 - 1579 ksi @Temperature -4.00 - 482 °F	Average value: 4.47 GPa Grade Count:2
Flexural Yield Strength	120 - 240 MPa	17400 - 34800 psi	Average value: 189 MPa Grade Count:6
Flexural Modulus	3.30 - 10.0 GPa	479 - 1450 ksi	Average value: 6.65 GPa Grade Count:11
Izod Impact, Notched	0.900 - 1.50 J/cm	1.69 - 2.81 ft-lb/in	Average value: 1.18 J/cm Grade Count:4

Mechanical Properties	Metric	English	Comments
Charpy Impact Notched (ISO)	5.00 - 23.0 kJ/m ²	2.38 - 10.9 ft-lb/in ²	Average value: 13.9 kJ/m ² Grade Count:9
	11.0 - 15.0 kJ/m ²	5.23 - 7.14 ft-lb/in ²	Average value: 12.8 kJ/m ² Grade Count:3
	@Temperature -40.0 - -40.0 °C	@Temperature -40.0 - -40.0 °F	
Charpy Impact Unnotched	4.50 - 11.5 J/cm ²	21.4 - 54.7 ft-lb/in ²	Average value: 8.23 J/cm ² Grade Count:7
	4.00 - 9.00 J/cm ²	19.0 - 42.8 ft-lb/in ²	Average value: 7.25 J/cm ² Grade Count:6
	@Temperature -30.0 - -20.0 °C	@Temperature -22.0 - -4.00 °F	
Charpy Impact, Notched	0.550 - 4.00 J/cm ²	2.62 - 19.0 ft-lb/in ²	Average value: 1.64 J/cm ² Grade Count:8
	0.300 - 1.50 J/cm ²	1.43 - 7.14 ft-lb/in ²	Average value: 1.01 J/cm ² Grade Count:8
	@Temperature -40.0 - -20.0 °C	@Temperature -40.0 - -4.00 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	14.0 - 47.0 µm/m-°C	7.78 - 26.1 µin/in-°F	Average value: 23.4 µm/m-°C Grade Count:5
CTE, linear, Transverse to Flow	75.0 - 120 µm/m-°C	41.7 - 66.7 µin/in-°F	Average value: 97.0 µm/m-°C Grade Count:4
Melting Point	235 - 263 °C	455 - 505 °F	Average value: 254 °C Grade Count:9
Deflection Temperature at 0.46 MPa (66 psi)	225 - 255 °C	437 - 491 °F	Average value: 245 °C Grade Count:6
Deflection Temperature at 1.8 MPa (264 psi)	200 - 250 °C	392 - 482 °F	Average value: 224 °C Grade Count:14
Vicat Softening Point	225 - 255 °C	437 - 491 °F	Average value: 240 °C Grade Count:4
Flammability, UL94	HB	HB	Grade Count:7

Processing Properties	Metric	English	Comments
Melt Temperature	250 - 310 °C	482 - 590 °F	Average value: 287 °C Grade Count:9
Mold Temperature	70.0 - 120 °C	158 - 248 °F	Average value: 93.9 °C Grade Count:9
Drying Temperature	79.4 - 80.0 °C	175 - 176 °F	Average value: 79.9 °C Grade Count:9
Moisture Content	0.0500 - 0.200 %	0.0500 - 0.200 %	Average value: 0.177 % Grade Count:9
Injection Pressure	34.5 - 138 MPa	5000 - 20000 psi	Average value: 89.1 MPa Grade Count:3

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