

Overview of materials for Nylon 12, PTFE Filled

Category : Polymer , Thermoplastic , Nylon , Nylon 12 , Nylon 12, PTFE Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 12, PTFE 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-12-PTFE-Filled.php

Physical Properties	Metric	English	Comments
Density	1.03 - 1.14 g/cc	0.0372 - 0.0412 lb/in ³	Average value: 1.10 g/cc Grade Count:10
Water Absorption	0.100 - 0.500 %	0.100 - 0.500 %	Average value: 0.229 % Grade Count:7
Linear Mold Shrinkage	0.00700 - 0.0200 cm/cm	0.00700 - 0.0200 in/in	Average value: 0.0142 cm/cm Grade Count:10

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	106 - 108	106 - 108	Average value: 107 Grade Count:3
Tensile Strength, Ultimate	31.0 - 50.0 MPa	4500 - 7250 psi	Average value: 40.8 MPa Grade Count:9
Elongation at Break	4.50 - 20.0 %	4.50 - 20.0 %	Average value: 10.6 % Grade Count:8
Modulus of Elasticity	1.24 - 2.30 GPa	180 - 334 ksi	Average value: 1.65 GPa Grade Count:8
Flexural Yield Strength	37.9 - 75.0 MPa	5500 - 10900 psi	Average value: 56.4 MPa Grade Count:10
Flexural Modulus	1.10 - 2.00 GPa	160 - 290 ksi	Average value: 1.48 GPa Grade Count:10
Izod Impact, Notched	0.374 - 0.801 J/cm	0.700 - 1.50 ft-lb/in	Average value: 0.618 J/cm Grade Count:8
Izod Impact, Unnotched	8.01 - 5340 J/cm	15.0 - 10000 ft-lb/in	Average value: 11.3 J/cm Grade Count:6

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	49.0 - 77.8 °C	120 - 172 °F	Average value: 60.6 °C Grade Count:7
Flammability, UL94	HB	HB	Grade Count:4

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+11 - 1.00e+13 ohm-cm	1.00e+11 - 1.00e+13 ohm-cm	Average value: 3.70e+12 ohm-cm Grade Count:3

Processing Properties	Metric	English	Comments
Processing Temperature	216 - 266 °C	420 - 510 °F	Average value: 244 °C Grade Count:5
Melt Temperature	221 - 274 °C	430 - 525 °F	Average value: 249 °C Grade Count:5
Mold Temperature	65.6 - 110 °C	150 - 230 °F	Average value: 86.3 °C Grade Count:8
Drying Temperature	75.0 - 105 °C	167 - 221 °F	Average value: 85.5 °C Grade Count:5
Moisture Content	0.100 %	0.100 %	Average value: 0.100 % Grade Count:3
Dew Point	-40.0 °C	-40.0 °F	Average value: -40.0 °C Grade Count:3
Injection Pressure	68.9 - 103 MPa	10000 - 15000 psi	Average value: 86.2 MPa Grade Count:6

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