

Overview of materials for Nylon 66, Stainless Steel Filled; EMI Grade

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, Stainless Steel Filled; EMI Grade

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Nylon 66, Stainless Steel Filled; EMI Grade". 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-66-Stainless-Steel-Filled-EMI-Grade.php

Physical Properties	Metric	English	Comments
Density	1.13 - 1.99 g/cc	0.0408 - 0.0719 lb/in ³	Average value: 1.35 g/cc Grade Count:24
Filler Content	5.00 - 20.0 %	5.00 - 20.0 %	Average value: 11.1 % Grade Count:10
Water Absorption	0.500 - 1.50 %	0.500 - 1.50 %	Average value: 1.06 % Grade Count:7
Linear Mold Shrinkage	0.00150 - 0.0240 cm/cm	0.00150 - 0.0240 in/in	Average value: 0.0101 cm/cm Grade Count:23
Linear Mold Shrinkage, Transverse	0.00400 - 0.0180 cm/cm	0.00400 - 0.0180 in/in	Average value: 0.0120 cm/cm Grade Count:9

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	30.0 - 159 MPa	4350 - 23100 psi	Average value: 87.4 MPa Grade Count:22
Elongation at Break	1.00 - 12.0 %	1.00 - 12.0 %	Average value: 5.69 % Grade Count:23
Modulus of Elasticity	2.34 - 11.0 GPa	340 - 1600 ksi	Average value: 4.89 GPa Grade Count:22
Flexural Yield Strength	65.5 - 255 MPa	9500 - 37000 psi	Average value: 138 MPa Grade Count:19
Flexural Modulus	1.72 - 10.3 GPa	250 - 1490 ksi	Average value: 4.61 GPa Grade Count:19
Izod Impact, Notched	0.370 - 1.87 J/cm	0.693 - 3.50 ft-lb/in	Average value: 0.799 J/cm Grade Count:19
Izod Impact, Unnotched	4.81 - 10.7 J/cm	9.00 - 20.0 ft-lb/in	Average value: 8.33 J/cm Grade Count:15
Charpy Impact Unnotched	1.50 - 4.00 J/cm ²	7.14 - 19.0 ft-lb/in ²	Average value: 2.75 J/cm ² Grade Count:4
Charpy Impact, Notched	0.280 - 0.600 J/cm ²	1.33 - 2.86 ft-lb/in ²	Average value: 0.398 J/cm ² Grade Count:6
		5000 x 10 ⁻¹⁰ in ³ -	Average value: 10100 x 10 ^{<sup>-</sup>}

K (wear) Factor Mechanical Properties	10100 x 10⁻⁹ mm³/N-M Metric	min/ft-lb-hr English	8</sup> mm³/N-M Grade Count:3 Comments
Thermal Properties			
Deflection Temperature at 0.46 MPa (66 psi)	188 - 260 °C	370 - 500 °F	Average value: 234 °C Grade Count:10
Deflection Temperature at 1.8 MPa (264 psi)	71.1 - 249 °C	160 - 480 °F	Average value: 174 °C Grade Count:14
Vicat Softening Point	230 - 245 °C	446 - 473 °F	Average value: 241 °C Grade Count:4
Flammability, UL94	HB	HB	Grade Count:7
Electrical Properties			
Electrical Resistivity	1.00 - 10000 ohm-cm	1.00 - 10000 ohm-cm	Average value: 699 ohm-cm Grade Count:23
Surface Resistance	1.00 - 1.00e+6 ohm	1.00 - 1.00e+6 ohm	Average value: 319000 ohm Grade Count:18
Static Decay	0.100 - 2.00 sec	0.100 - 2.00 sec	Average value: 1.72 sec Grade Count:12
Processing Properties			
Processing Temperature	70.0 - 293 °C	158 - 560 °F	Average value: 181 °C Grade Count:6
Melt Temperature	230 - 320 °C	446 - 608 °F	Average value: 287 °C Grade Count:16
Mold Temperature	54.4 - 107 °C	130 - 225 °F	Average value: 88.0 °C Grade Count:19
Drying Temperature	70.0 - 121 °C	158 - 250 °F	Average value: 88.5 °C Grade Count:15
Moisture Content	0.0200 - 0.200 %	0.0200 - 0.200 %	Average value: 0.176 % Grade Count:9
Dew Point	-30.0 - -28.9 °C	-22.0 - -20.0 °F	Average value: -29.6 °C Grade Count:3
Injection Pressure	68.9 - 138 MPa	10000 - 20000 psi	Average value: 90.9 MPa Grade Count:11

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