

Overview of materials for Polypropylene with 10% Talc Filler

Category : Polymer , Thermoplastic , Polypropylene (PP) , Polypropylene with 10% Talc Filler

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polypropylene with 10% Talc Filler". Specific grades with primary filler content between 5% and 14% 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-Polypropylene-with-10-Talc-Filler.php

Physical Properties	Metric	English	Comments
Density	0.920 - 1.20 g/cc	0.0332 - 0.0434 lb/in ³	Average value: 0.987 g/cc Grade Count:123
Filler Content	7.00 - 14.0 %	7.00 - 14.0 %	Average value: 11.2 % Grade Count:46
Linear Mold Shrinkage	0.00100 - 0.0264 cm/cm	0.00100 - 0.0264 in/in	Average value: 0.0128 cm/cm Grade Count:90
	0.00600 - 0.00900 cm/cm @Temperature 80.0 - 121 °C	0.00600 - 0.00900 in/in @Temperature 176 - 250 °F	Average value: 0.00750 cm/cm Grade Count:1
	0.00600 - 0.00900 cm/cm @Time 3600 - 3600 sec	0.00600 - 0.00900 in/in @Time 1.00 - 1.00 hour	Average value: 0.00750 cm/cm Grade Count:1
Linear Mold Shrinkage, Transverse	0.00980 - 0.0271 cm/cm	0.00980 - 0.0271 in/in	Average value: 0.0159 cm/cm Grade Count:14
Melt Flow	0.600 - 60.0 g/10 min	0.600 - 60.0 g/10 min	Average value: 14.5 g/10 min Grade Count:107
Ash	8.00 - 30.0 %	8.00 - 30.0 %	Average value: 14.2 % Grade Count:23
	13.0 - 13.0 % @Temperature 950 - 950 °C	13.0 - 13.0 % @Temperature 1740 - 1740 °F	Average value: 13.0 % Grade Count:1

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	53.0 - 101	53.0 - 101	Average value: 69.0 Grade Count:3
Hardness, Rockwell R	50.0 - 100	50.0 - 100	Average value: 80.3 Grade Count:29
Hardness, Shore D	54.0 - 82.0	54.0 - 82.0	Average value: 70.2 Grade Count:30

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	15.0 - 39.0 MPa	2180 - 5660 psi	Average value: 27.1 MPa Grade Count:65
Elongation at Break	4.00 - 400 %	4.00 - 400 %	Average value: 42.4 % Grade Count:51
Elongation at Yield	3.30 - 50.0 %	3.30 - 50.0 %	Average value: 10.9 % Grade Count:33
Modulus of Elasticity	1.00 - 5.10 GPa	145 - 740 ksi	Average value: 1.79 GPa Grade Count:35
Flexural Yield Strength	17.0 - 105 MPa	2470 - 15200 psi	Average value: 37.7 MPa Grade Count:54
Flexural Modulus	0.640 - 4.70 GPa	92.8 - 682 ksi	Average value: 1.81 GPa Grade Count:121
Izod Impact, Notched	0.214 - 13.3 J/cm	0.400 - 25.0 ft-lb/in	Average value: 1.28 J/cm Grade Count:84
Izod Impact, Unnotched	2.40 - 16.0 J/cm	4.50 - 30.0 ft-lb/in	Average value: 6.99 J/cm Grade Count:10
Izod Impact, Notched (ISO)	2.70 - 54.0 kJ/m ²	1.28 - 25.7 ft-lb/in ²	Average value: 19.0 kJ/m ² Grade Count:11
	2.00 - 2.30 kJ/m ² @Temperature -40.0 - - 30.0 °C	0.952 - 1.09 ft-lb/in ² @Temperature -40.0 - - 22.0 °F	Average value: 2.10 kJ/m ² Grade Count:3
Charpy Impact Unnotched	4.20 - 1000 J/cm ²	20.0 - 4760 ft-lb/in ²	Average value: 6.03 J/cm ² Grade Count:17
	2.00 - 999.9 J/cm ² @Temperature -20.0 - - 20.0 °C	9.52 - 4759 ft-lb/in ² @Temperature -4.00 - - 4.00 °F	Average value: 3.42 J/cm ² Grade Count:14
Charpy Impact, Notched	0.300 - 7.50 J/cm ²	1.43 - 35.7 ft-lb/in ²	Average value: 2.15 J/cm ² Grade Count:27
	0.200 - 4.80 J/cm ² @Temperature -30.0 - - 20.0 °C	0.952 - 22.8 ft-lb/in ² @Temperature -22.0 - - 4.00 °F	Average value: 0.834 J/cm ² Grade Count:22
Gardner Impact	0.565 - 33.9 J	0.417 - 25.0 ft-lb	Average value: 5.46 J Grade Count:32
	6.44015 - 6.44015 J @Temperature -30.0 - - 30.0 °C	4.75001 - 4.75001 ft-lb @Temperature -22.0 - - 22.0 °F	Average value: 6.44 J Grade Count:1

Thermal Properties	Metric	English	Comments
Melting Point	135 - 165 °C	275 - 329 °F	Average value: 157 °C Grade Count:8
Deflection Temperature at 0.46 MPa (66 psi)	60.0 - 127 °C	140 - 261 °F	Average value: 108 °C Grade Count:95

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	36.8 - 128 °C	96.8 - 248 °F	Average value: 63.4 °C Grade Count:74
Vicat Softening Point	50.0 - 155 °C	122 - 311 °F	Average value: 112 °C Grade Count:25
Flammability, UL94	HB	HB	Grade Count:21
Glow Wire Test	650 - 750 °C	1200 - 1380 °F	Average value: 683 °C Grade Count:3

Processing Properties	Metric	English	Comments
Nozzle Temperature	200 - 227 °C	392 - 440 °F	Average value: 215 °C Grade Count:26
Melt Temperature	170 - 279 °C	338 - 534 °F	Average value: 215 °C Grade Count:51
Mold Temperature	10.0 - 80.0 °C	50.0 - 176 °F	Average value: 43.4 °C Grade Count:51
Drying Temperature	65.6 - 100 °C	150 - 212 °F	Average value: 76.6 °C Grade Count:41
Moisture Content	0.0400 - 0.100 %	0.0400 - 0.100 %	Average value: 0.0543 % Grade Count:28
Injection Pressure	2.76 - 120 MPa	400 - 17400 psi	Average value: 49.3 MPa Grade Count:44

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