

## Overview of materials for Polypropylene with 30% Talc Filler

Category : Polymer , Thermoplastic , Polypropylene (PP) , Polypropylene with 30% Talc Filler

### Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polypropylene with 30% Talc Filler". Specific grades with primary filler 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-Polypropylene-with-30-Talc-Filler.php](http://www.lookpolymers.com/polymer_Overview-of-materials-for-Polypropylene-with-30-Talc-Filler.php)

Physical Properties	Metric	English	Comments
Density	1.05 - 1.48 g/cc	0.0379 - 0.0535 lb/in <sup>3</sup>	Average value: 1.13 g/cc Grade Count:123
Filler Content	25.0 - 32.0 %	25.0 - 32.0 %	Average value: 29.4 % Grade Count:64
Water Absorption	0.0100 - 0.0400 %	0.0100 - 0.0400 %	Average value: 0.0236 % Grade Count:11
Linear Mold Shrinkage	0.00600 - 0.0212 cm/cm	0.00600 - 0.0212 in/in	Average value: 0.0113 cm/cm Grade Count:105
Linear Mold Shrinkage, Transverse	0.00850 - 0.0211 cm/cm	0.00850 - 0.0211 in/in	Average value: 0.0150 cm/cm Grade Count:19
Melt Flow	0.700 - 230 g/10 min	0.700 - 230 g/10 min	Average value: 13.1 g/10 min Grade Count:106
Ash	28.0 - 32.0 %	28.0 - 32.0 %	Average value: 29.9 % Grade Count:13
	28.0 - 28.0 %	28.0 - 28.0 %	Average value: 28.0 % Grade Count:1
	@Temperature 900 - 900 °C	@Temperature 1650 - 1650 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	49.0 - 100	49.0 - 100	Average value: 67.0 Grade Count:4
Hardness, Rockwell R	45.0 - 100	45.0 - 100	Average value: 79.2 Grade Count:20
Hardness, Shore D	64.0 - 82.0	64.0 - 82.0	Average value: 72.1 Grade Count:16
Tensile Strength, Ultimate	13.0 - 36.0 MPa	1890 - 5220 psi	Average value: 26.0 MPa Grade Count:91
Tensile Strength, Yield	15.0 - 38.0 MPa	2180 - 5510 psi	Average value: 27.4 MPa Grade Count:45
Elongation at Break	3.00 - 250 %	3.00 - 250 %	Average value: 21.5 % Grade Count:66

Mechanical Properties	Metric <sup>~ 100%</sup>	English <sup>~ 100%</sup>	Comments
	@Temperature 60.0 - 90.0 °C	@Temperature 140 - 194 °F	Average value: 100 % Grade Count:1
Elongation at Yield	2.70 - 80.0 %	2.70 - 80.0 %	Average value: 8.40 % Grade Count:63
	5.00 - 6.00 %	5.00 - 6.00 %	
	@Temperature 60.0 - 90.0 °C	@Temperature 140 - 194 °F	Average value: 5.50 % Grade Count:1
Modulus of Elasticity	1.50 - 3.79 GPa	218 - 550 ksi	Average value: 2.57 GPa Grade Count:39
	0.500 - 1.10 GPa	72.5 - 160 ksi	
	@Temperature 60.0 - 90.0 °C	@Temperature 140 - 194 °F	Average value: 0.800 GPa Grade Count:1
Flexural Yield Strength	20.0 - 88.0 MPa	2900 - 12800 psi	Average value: 46.6 MPa Grade Count:74
Flexural Modulus	1.40 - 4.10 GPa	203 - 595 ksi	Average value: 2.51 GPa Grade Count:119
	2.60 - 3.70 GPa	377 - 537 ksi	
	@Temperature -20.0 - - 20.0 °C	@Temperature -4.00 - - 4.00 °F	Average value: 3.15 GPa Grade Count:2
Izod Impact, Notched	0.149 - 2.40 J/cm	0.280 - 4.50 ft-lb/in	Average value: 0.528 J/cm Grade Count:67
	0.300 - 1.00 J/cm	0.562 - 1.87 ft-lb/in	
	@Temperature -40.0 - 0.000 °C	@Temperature -40.0 - 32.0 °F	Average value: 0.512 J/cm Grade Count:3
Izod Impact, Unnotched	2.51 - 13.3 J/cm	4.70 - 25.0 ft-lb/in	Average value: 4.72 J/cm Grade Count:12
Izod Impact, Notched (ISO)	2.70 - 40.0 kJ/m <sup>2</sup>	1.28 - 19.0 ft-lb/in <sup>2</sup>	Average value: 13.1 kJ/m <sup>2</sup> Grade Count:5
	2.10 - 2.10 kJ/m <sup>2</sup>	0.999 - 0.999 ft-lb/in <sup>2</sup>	
	@Temperature -40.0 - - 40.0 °C	@Temperature -40.0 - - 40.0 °F	Average value: 2.10 kJ/m <sup>2</sup> Grade Count:1
Charpy Impact Unnotched	2.50 J/cm <sup>2</sup> - NB	11.9 ft-lb/in <sup>2</sup> - NB	Average value: 5.62 J/cm <sup>2</sup> Grade Count:31
	1.10 - 999.9 J/cm <sup>2</sup>	5.24 - 4759 ft-lb/in <sup>2</sup>	
	@Temperature -40.0 - - 20.0 °C	@Temperature -40.0 - - 4.00 °F	Average value: 2.83 J/cm <sup>2</sup> Grade Count:25
Charpy Impact, Notched	0.200 - 3.50 J/cm <sup>2</sup>	0.952 - 16.7 ft-lb/in <sup>2</sup>	Average value: 0.743 J/cm <sup>2</sup> Grade Count:54
	0.0300 - 0.600 J/cm <sup>2</sup>	0.143 - 2.86 ft-lb/in <sup>2</sup>	
			Average value: 0.289 J/cm <sup>2</sup> Grade

Mechanical Properties	Metric @Temperature -30.0 - - 20.0 °C	English @Temperature -22.0 - - 7.0 °F	Count:43 Comments
Gardner Impact	0.565 - 21.7 J	0.417 - 16.0 ft-lb	Average value: 4.47 J Grade Count:22
	5.53626 - 5.53626 J @Temperature -30.0 - - 30.0 °C	4.08334 - 4.08334 ft-lb @Temperature -22.0 - - 22.0 °F	Average value: 6.89 J Grade Count:1
	7.23 - 7.23 J @Temperature -23.0 - - 23.0 °C	5.33 - 5.33 ft-lb @Temperature -9.40 - - 9.40 °F	Average value: 6.89 J Grade Count:2
	7.23 - 7.23 J @Thickness 3.18 - 3.18 mm	5.33 - 5.33 ft-lb @Thickness 0.125 - 0.125 in	Average value: 6.89 J Grade Count:2

Thermal Properties	Metric	English	Comments
CTE, linear	48.6 - 100 µm/m-°C	27.0 - 55.6 µin/in-°F	Average value: 77.2 µm/m-°C Grade Count:10
Melting Point	150 - 182 °C	302 - 360 °F	Average value: 159 °C Grade Count:19
Deflection Temperature at 0.46 MPa (66 psi)	54.0 - 144 °C	129 - 291 °F	Average value: 119 °C Grade Count:97
Deflection Temperature at 1.8 MPa (264 psi)	50.0 - 137 °C	122 - 278 °F	Average value: 74.1 °C Grade Count:99
Vicat Softening Point	52.0 - 192 °C	126 - 378 °F	Average value: 110 °C Grade Count:62
Flammability, UL94	HB - V-0	HB - V-0	Grade Count:55
Oxygen Index	21.0 %	21.0 %	Average value: 21.0 % Grade Count:6
Glow Wire Test	550 - 750 °C	1020 - 1380 °F	Average value: 728 °C Grade Count:32

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	Average value: 1.00e+16 ohm-cm Grade Count:3
Dielectric Strength	19.7 - 24.0 kV/mm	500 - 610 kV/in	Average value: 22.3 kV/mm Grade Count:5
Comparative Tracking Index	600 V	600 V	Average value: 600 V Grade Count:3

Processing Properties	Metric	English	Comments
Processing Temperature	193 - 227 °C	380 - 440 °F	Average value: 210 °C Grade Count:3
Nozzle Temperature	200 - 232 °C	392 - 450 °F	Average value: 220 °C Grade Count:15
Melt Temperature			Average value: 222 °C Grade Count:70

<b>Processing Properties</b>	<b>170 - 279 °C Metric</b>	<b>338 - 534 °F English</b>	<b>Comments</b>
Mold Temperature	15.0 - 80.0 °C	59.0 - 176 °F	Average value: 49.8 °C Grade Count:71
Drying Temperature	51.7 - 100 °C	125 - 212 °F	Average value: 75.4 °C Grade Count:58
Moisture Content	0.0100 - 0.200 %	0.0100 - 0.200 %	Average value: 0.0669 % Grade Count:18
Injection Pressure	2.76 - 120 MPa	400 - 17400 psi	Average value: 66.5 MPa Grade Count:59

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