

Overview of materials for Polytetrafluoroethylene (PTFE), Conductive Carbon Filled

Category : Polymer , Thermoplastic , Fluoropolymer , PTFE , Polytetrafluoroethylene (PTFE), Conductive Carbon Filled

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "Polytetrafluoroethylene (PTFE), Conductive Carbon 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-Polytetrafluoroethylene-PTFE-Conductive-Carbon-Filled.php

Physical Properties	Metric	English	Comments
Density	1.90 - 2.19 g/cc	0.0686 - 0.0791 lb/in ³	Average value: 2.10 g/cc Grade Count:20
Apparent Bulk Density	0.390 - 0.770 g/cc	0.0141 - 0.0278 lb/in ³	Average value: 0.603 g/cc Grade Count:11
Linear Mold Shrinkage	0.0200 - 0.0450 cm/cm	0.0200 - 0.0450 in/in	Average value: 0.0272 cm/cm Grade Count:12

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	52.0 - 70.0	52.0 - 70.0	Average value: 63.3 Grade Count:18
Tensile Strength, Ultimate	8.00 - 39.0 MPa	1160 - 5660 psi	Average value: 17.0 MPa Grade Count:18
Elongation at Break	30.0 - 350 %	30.0 - 350 %	Average value: 150 % Grade Count:20
Compressive Yield Strength	7.00 - 23.4 MPa	1020 - 3400 psi	Average value: 11.7 MPa Grade Count:7
Shear Strength	14.479 - 19.3053 MPa @Temperature 26.7 - 149 °C	2100.0 - 2800.00 psi @Temperature 80.0 - 300 °F	Average value: 16.9 MPa Grade Count:1
Coefficient of Friction	0.0600 - 0.240	0.0600 - 0.240	Average value: 0.0977 Grade Count:13
Coefficient of Friction, Static	0.0500 - 0.200	0.0500 - 0.200	Average value: 0.0913 Grade Count:8
K (wear) Factor	12.0 - 60.4 x 10 ⁻⁸ mm ³ /N-M	5.96 - 30.0 x 10 ⁻¹⁰ in ³ -min/ft-lb-hr	Average value: 26.4 x 10 ⁻⁸ mm ³ /N-M Grade Count:6

Thermal Properties	Metric	English	Comments
CTE, linear	65.0 - 160 µm/m-°C	36.1 - 88.9 µin/in-°F	Average value: 121 µm/m-°C Grade Count:12
	90.0 - 140 µm/m-°C	50.0 - 77.8 µin/in-°F	

Thermal Properties	Metric @ Temperature 30.0 - 300 °C	English @ Temperature 86.0 - 572 °F	Comments Average value: 113 µm/m- °C Grade Count:2
Thermal Conductivity	0.590 - 0.800 W/m-K	4.09 - 5.55 BTU-in/hr- ft ² -°F	Average value: 0.643 W/m-K Grade Count:6
Maximum Service Temperature, Air	260 - 300 °C	500 - 572 °F	Average value: 263 °C Grade Count:12
Minimum Service Temperature, Air	-200 °C	-328 °F	Average value: -200 °C Grade Count:6

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1000 - 1.00e+11 ohm- cm	1000 - 1.00e+11 ohm- cm	Average value: 1.25e+10 ohm-cm Grade Count:8
Surface Resistance	1000 - 1.00e+12 ohm	1000 - 1.00e+12 ohm	Average value: 3.33e+11 ohm Grade Count:3

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China