

Overview of materials for PVC, Uncompounded

Category : Polymer , Thermoplastic , Vinyl (PVC) , PVC, Uncompounded

Material Notes:

This property data is a summary of similar materials in the MatWeb database for the category "PVC, Uncompounded". 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-PVC-Uncompounded.php

Physical Properties	Metric	English	Comments
Density	0.880 - 1.62 g/cc	0.0318 - 0.0585 lb/in ³	Average value: 1.34 g/cc Grade Count:85
Apparent Bulk Density	0.470 - 0.620 g/cc	0.0170 - 0.0224 lb/in ³	Average value: 0.551 g/cc Grade Count:9
Water Absorption	0.200 %	0.200 %	Average value: 0.200 % Grade Count:3
Particle Size	63.0 - 250 µm	63.0 - 250 µm	Average value: 157 µm Grade Count:8
Viscosity	1000 - 60000 cP	1000 - 60000 cP	Average value: 9750 cP Grade Count:12
Molecular Weight	60000 - 150000 g/mol	60000 - 150000 g/mol	Average value: 105000 g/mol Grade Count:19

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	50.0 - 98.0	50.0 - 98.0	Average value: 78.9 Grade Count:34
Hardness, Shore D	34.0 - 90.0	34.0 - 90.0	Average value: 59.7 Grade Count:18
Tensile Strength, Ultimate	8.48 - 80.0 MPa	1230 - 11600 psi	Average value: 16.6 MPa Grade Count:51
Tensile Strength, Yield	4.14 - 57.0 MPa	600 - 8270 psi	Average value: 19.9 MPa Grade Count:13
Elongation at Break	10.0 - 600 %	10.0 - 600 %	Average value: 298 % Grade Count:52
Elongation at Yield	3.00 - 4.00 %	3.00 - 4.00 %	Average value: 3.33 % Grade Count:3
Modulus of Elasticity	2.50 - 3.00 GPa	363 - 435 ksi	Average value: 2.75 GPa Grade Count:4
Charpy Impact, Notched	0.300 - 7.00 J/cm ²	1.43 - 33.3 ft-lb/in ²	Average value: 2.60 J/cm ² Grade Count:3
Coefficient of Friction	0.600	0.600	Average value: 0.600 Grade Count:3
Tear Strength	40.0 - 75.0 kN/m	228 - 428 pli	Average value: 57.5 kN/m Grade

Mechanical Properties	Metric	English	Count:4 Comments
Thermal Properties	Metric	English	Comments
CTE, linear	60.0 - 80.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	33.3 - 44.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	Average value: 71.7 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ Grade Count:3
Thermal Conductivity	0.120 - 0.140 W/m-K	0.833 - 0.972 BTU-in/hr-ft ² -°F	Average value: 0.133 W/m-K Grade Count:3
Melting Point	160 - 302 $^\circ\text{C}$	320 - 576 $^\circ\text{F}$	Average value: 295 $^\circ\text{C}$ Grade Count:20
Maximum Service Temperature, Air	60.0 - 85.0 $^\circ\text{C}$	140 - 185 $^\circ\text{F}$	Average value: 66.3 $^\circ\text{C}$ Grade Count:4
Minimum Service Temperature, Air	-15.0 - 0.000 $^\circ\text{C}$	5.00 - 32.0 $^\circ\text{F}$	Average value: -11.3 $^\circ\text{C}$ Grade Count:4
Brittleness Temperature	-55.0 - -16.0 $^\circ\text{C}$	-67.0 - 3.20 $^\circ\text{F}$	Average value: -34.1 $^\circ\text{C}$ Grade Count:16
Flammability, UL94	V-0	V-0	Grade Count:5
Oxygen Index	25.0 - 55.0 %	25.0 - 55.0 %	Average value: 29.8 % Grade Count:22

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1000 - 1.00e+16 ohm-cm	1000 - 1.00e+16 ohm-cm	Average value: 1.95e+15 ohm-cm Grade Count:11
Surface Resistance	1.00e+10 - 1.00e+16 ohm	1.00e+10 - 1.00e+16 ohm	Average value: 2.51e+15 ohm Grade Count:4
Dielectric Constant	2.30 - 3.80	2.30 - 3.80	Average value: 3.13 Grade Count:9
Dielectric Strength	20.0 - 50.0 kV/mm	508 - 1270 kV/in	Average value: 34.2 kV/mm Grade Count:3
Dissipation Factor	0.00590 - 0.278	0.00590 - 0.278	Average value: 0.104 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