

Overview of materials for PVC, Flexible Grade

Category : Polymer , Thermoplastic , Vinyl (PVC) , PVC, Flexible Grade

Material Notes:

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

| Physical Properties | Metric | English | Comments |
|-----------------------|-------------------------------|------------------------------------|--|
| Density | 0.920 - 1.68 g/cc | 0.0332 - 0.0607 lb/in ³ | Average value: 1.28 g/cc Grade Count:767 |
| Viscosity | 473000 - 473000 cP | 473000 - 473000 cP | Average value: 473000 cP Grade Count:1 |
| | @Temperature 177 - 177 °C | @Temperature 351 - 351 °F | |
| Viscosity Test | 473000 - 473000 cP | 473000 - 473000 cP | Average value: 473000 cP Grade Count:1 |
| | @Frequency 1000 - 1000 Hz | @Frequency 1000 - 1000 Hz | |
| Viscosity Test | 88.0 - 105 cm ³ /g | 88.0 - 105 cm ³ /g | Average value: 99.3 cm ³ /g Grade Count:3 |
| Linear Mold Shrinkage | 0.0100 - 0.0310 cm/cm | 0.0100 - 0.0310 in/in | Average value: 0.0146 cm/cm Grade Count:41 |
| Melt Flow | 0.420 - 460 g/10 min | 0.420 - 460 g/10 min | Average value: 78.7 g/10 min Grade Count:6 |
| Ash | 0.0500 % | 0.0500 % | Average value: 0.0500 % Grade Count:3 |
| ASTM Color | -2.21 - 96.7 | -2.21 - 96.7 | Average value: 33.5 Grade Count:4 |

| Mechanical Properties | Metric | English | Comments |
|----------------------------|------------------|----------------|---|
| Hardness, Shore A | 35.0 - 110 | 35.0 - 110 | Average value: 74.1 Grade Count:648 |
| Hardness, Shore D | 34.0 - 74.0 | 34.0 - 74.0 | Average value: 55.5 Grade Count:26 |
| Hardness, Shore C | 65.0 - 92.0 | 65.0 - 92.0 | Average value: 77.3 Grade Count:83 |
| Tensile Strength, Ultimate | 0.758 - 24.8 MPa | 110 - 3600 psi | Average value: 15.5 MPa Grade Count:490 |
| Tensile Strength, Yield | 0.827 - 23.4 MPa | 120 - 3400 psi | Average value: 11.1 MPa Grade Count:379 |
| | 50.0 - 600 % | 50.0 - 600 % | Average value: 325 % Grade |

| Elongation at Break Mechanical Properties | Metric | English | Count:752 Comments |
|--|-------------------------------|------------------------------|--|
| Modulus of Elasticity | 0.00552 - 0.0121 GPa | 0.801 - 1.75 ksi | Average value: 0.00797 GPa Grade Count:4 |
| Tear Strength | 11.0 - 114 kN/m | 62.8 - 650 pli | Average value: 56.1 kN/m Grade Count:72 |
| Compression Set | 18.0 - 67.0 % | 18.0 - 67.0 % | Average value: 32.2 % Grade Count:35 |
| | 13.0 - 80.0 % | 13.0 - 80.0 % | Average value: 40.0 % Grade Count:5 |
| | @Temperature -5.00 - 37.8 °C | @Temperature 23.0 - 100 °F | |
| | 13.0 - 80.0 % | 13.0 - 80.0 % | Average value: 40.0 % Grade Count:5 |
| | @Time 79200 - 79200 sec | @Time 22.0 - 22.0 hour | |
| Clash Berg Modulus | 0.00689 - 0.996 GPa | 0.999 - 144 ksi | Average value: 0.341 GPa Grade Count:20 |
| | 0.00745 - 0.558 GPa | 1.08 - 80.9 ksi | Average value: 0.308 GPa Grade Count:24 |
| | @Temperature -58.0 - -13.0 °C | @Temperature -72.4 - 8.60 °F | |

| Thermal Properties | Metric | English | Comments |
|-----------------------------------|------------------|-----------------|---|
| Maximum Service Temperature, Air | 50.0 - 190 °C | 122 - 374 °F | Average value: 120 °C Grade Count:257 |
| Minimum Service Temperature, Air | -40.0 - -14.0 °C | -40.0 - 6.80 °F | Average value: -26.3 °C Grade Count:7 |
| Brittleness Temperature | -68.0 - 7.00 °C | -90.4 - 44.6 °F | Average value: -32.0 °C Grade Count:483 |
| UL RTI, Electrical | 50.0 - 90.0 °C | 122 - 194 °F | Average value: 80.0 °C Grade Count:26 |
| UL RTI, Mechanical with Impact | 50.0 °C | 122 °F | Average value: 50.0 °C Grade Count:11 |
| UL RTI, Mechanical without Impact | 50.0 - 90.0 °C | 122 - 194 °F | Average value: 78.3 °C Grade Count:26 |
| Flammability, UL94 | HB - V-0 | HB - V-0 | Grade Count:36 |
| Oxygen Index | 22.0 - 51.0 % | 22.0 - 51.0 % | Average value: 28.7 % Grade Count:186 |

| Optical Properties | Metric | English | Comments |
|---------------------------|---------------|----------------|--------------------------------------|
| Haze | 2.50 - 5.00 % | 2.50 - 5.00 % | Average value: 3.70 % Grade Count:6 |
| Gloss | 15.0 - 90.0 % | 15.0 - 90.0 % | Average value: 45.0 % Grade Count:4 |
| Transmission, Visible | 80.0 - 90.0 % | 80.0 - 90.0 % | Average value: 84.6 % Grade Count:17 |

| Optical Properties | Metric | English | Comments |
|-------------------------------|--------|---------|-------------------------------------|
| Component Elements Properties | Metric | English | Comments |
| Chlorine, Cl | 56.0 % | 56.0 % | Average value: 56.0 % Grade Count:3 |

| Electrical Properties | Metric | English | Comments |
|----------------------------|---|---|--|
| Electrical Resistivity | 2.50 - 5.60e+15 ohm-cm | 2.50 - 5.60e+15 ohm-cm | Average value: 3.94e+14 ohm-cm Grade Count:43 |
| | 5.00 - 3.39e+14 ohm-cm @Temperature 50.0 - 50.0 °C | 5.00 - 3.39e+14 ohm-cm @Temperature 122 - 122 °F | Average value: 4.04e+13 ohm-cm Grade Count:19 |
| Dielectric Constant | 2.89 - 7.04 | 2.89 - 7.04 | Average value: 4.15 Grade Count:45 |
| Dielectric Strength | 30.3 - 98.0 kV/mm | 770 - 2490 kV/in | Average value: 65.2 kV/mm Grade Count:4 |
| Dissipation Factor | 0.0330 - 0.140 | 0.0330 - 0.140 | Average value: 0.0724 Grade Count:42 |
| Comparative Tracking Index | 600 V | 600 V | Average value: 600 V Grade Count:22 |
| Hot Wire Ignition, HWI | 15.0 - 120 sec | 15.0 - 120 sec | Average value: 72.9 sec Grade Count:22 |
| High Amp Arc Ignition, HAI | 30.0 - 120 arcs | 30.0 - 120 arcs | Average value: 87.3 arcs Grade Count:21 |

| Processing Properties | Metric | English | Comments |
|-----------------------|--------------|--------------|---------------------------------------|
| Melt Temperature | 110 - 310 °C | 230 - 590 °F | Average value: 180 °C Grade Count:257 |

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