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| **Categories:** | [Polymer](http://www.matweb.com/Search/MaterialGroupSearch.aspx?GroupID=10); [Thermoplastic](http://www.matweb.com/Search/MaterialGroupSearch.aspx?GroupID=12); [Polyethylene (PE)](http://www.matweb.com/Search/MaterialGroupSearch.aspx?GroupID=15); [High Density (HDPE)](http://www.matweb.com/Search/MaterialGroupSearch.aspx?GroupID=108); [High Density Polyethylene (HDPE), Injection Molded](http://www.matweb.com/Search/MaterialGroupSearch.aspx?GroupID=898) |
| **Material Notes:** | This property data is a summary of similar materials in the MatWeb database for the category "High Density Polyethylene (HDPE), Injection Molded".  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. |
| **Vendors:** | **Bamberger Polymers** sells this and a wide range of thermoplastic resins such as  polyethylene, polypropylene, polyester, EVA, and polystyrene worldwide. [www.BambergerPolymers.com](http://www.matweb.com/clickthrough.aspx?addataid=61) or phone 800-888-8959.  [**Click here**](http://www.matweb.com/search/GetVendors.aspx?matguid=fce23f90005d4fbe8e12a1bce53ebdc8)**to view all available suppliers for this material.**  Please [click here](http://www.matweb.com/services/advertising.aspx) if you are a supplier and would like information on how to add your listing to this material. |
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| **Physical Properties** | **Metric** | **English** | **Comments** |
| Density | [0.924](http://www.matweb.com/tools/unitconverter.aspx?fromID=43&fromValue=0.924) - [0.995](http://www.matweb.com/tools/unitconverter.aspx?fromID=43&fromValue=0.995) g/cc | [0.0334](http://www.matweb.com/tools/unitconverter.aspx?fromID=87&fromValue=0.0334) - [0.0359](http://www.matweb.com/tools/unitconverter.aspx?fromID=87&fromValue=0.0359) lb/in³ | Average value: 0.954 g/cc Grade Count:482 |
| Water Absorption | 0.000 - 0.0700 % | 0.000 - 0.0700 % | Average value: 0.0157 % Grade Count:21 |
| Moisture Absorption at Equilibrium | 0.0100 - 0.100 % | 0.0100 - 0.100 % | Average value: 0.0360 % Grade Count:5 |
| Particle Size | [5.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=150&fromValue=5.00) - [1200](http://www.matweb.com/tools/unitconverter.aspx?fromID=150&fromValue=1200) µm | [5.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=150&fromValue=5.00) - [1200](http://www.matweb.com/tools/unitconverter.aspx?fromID=150&fromValue=1200) µm | Average value: 614 µm Grade Count:4 |
| Viscosity | [32000](http://www.matweb.com/tools/unitconverter.aspx?fromID=167&fromValue=32000) - [200000](http://www.matweb.com/tools/unitconverter.aspx?fromID=167&fromValue=200000) cP @Temperature 190 - 190 °C | [32000](http://www.matweb.com/tools/unitconverter.aspx?fromID=167&fromValue=32000) - [200000](http://www.matweb.com/tools/unitconverter.aspx?fromID=167&fromValue=200000) cP @Temperature 374 - 374 °F | Average value: 89000 cP Grade Count:7 |
|  | [32000](http://www.matweb.com/tools/unitconverter.aspx?fromID=167&fromValue=32000) - [200000](http://www.matweb.com/tools/unitconverter.aspx?fromID=167&fromValue=200000) cP @Shear Rate 300 - 5000 1/s | [32000](http://www.matweb.com/tools/unitconverter.aspx?fromID=167&fromValue=32000) - [200000](http://www.matweb.com/tools/unitconverter.aspx?fromID=167&fromValue=200000) cP @Shear Rate 300 - 5000 1/s | Average value: 89000 cP Grade Count:7 |
| Viscosity Test | [280](http://www.matweb.com/tools/unitconverter.aspx?fromID=18&fromValue=280) - [3800](http://www.matweb.com/tools/unitconverter.aspx?fromID=18&fromValue=3800) cm³/g | [2.80](http://www.matweb.com/tools/unitconverter.aspx?fromID=317&fromValue=2.80) - [38.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=317&fromValue=38.0) dl/g | Average value: 846 cm³/g Grade Count:7 |
| Environmental Stress Crack Resistance | [1.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=1.00) - [10000](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=10000) hour | [1.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=1.00) - [10000](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=10000) hour | Average value: 379 hour Grade Count:112 |
|  | [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=2.00) - [500](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=500) hour @Temperature 50.0 - 80.0 °C | [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=2.00) - [500](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=500) hour @Temperature 122 - 176 °F | Average value: 123 hour Grade Count:31 |
|  | [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=2.00) - [10.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=10.0) hour @Temperature 50.0 - 50.0 °C | [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=2.00) - [10.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=10.0) hour @Temperature 122 - 122 °F | Average value: 123 hour Grade Count:12 |
|  | [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=2.00) - [10.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=10.0) hour @Thickness 1.90 - 2.00 mm | [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=2.00) - [10.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=50&fromValue=10.0) hour @Thickness 0.0748 - 0.0787 in | Average value: 123 hour Grade Count:12 |
| Oxidative Induction Time (OIT) | [20.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=103&fromValue=20.0) - [100](http://www.matweb.com/tools/unitconverter.aspx?fromID=103&fromValue=100) min | [20.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=103&fromValue=20.0) - [100](http://www.matweb.com/tools/unitconverter.aspx?fromID=103&fromValue=100) min | Average value: 47.5 min Grade Count:4 |
|  | >= [30.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=103&fromValue=30.0) min @Temperature 200 - 210 °C | >= [30.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=103&fromValue=30.0) min @Temperature 392 - 410 °F | Average value: 38.3 min Grade Count:6 |
| Linear Mold Shrinkage | [0.0100](http://www.matweb.com/tools/unitconverter.aspx?fromID=148&fromValue=0.0100) - [0.0400](http://www.matweb.com/tools/unitconverter.aspx?fromID=148&fromValue=0.0400) cm/cm | [0.0100](http://www.matweb.com/tools/unitconverter.aspx?fromID=140&fromValue=0.0100) - [0.0400](http://www.matweb.com/tools/unitconverter.aspx?fromID=140&fromValue=0.0400) in/in | Average value: 0.0215 cm/cm Grade Count:31 |
| Linear Mold Shrinkage, Transverse | [0.00960](http://www.matweb.com/tools/unitconverter.aspx?fromID=148&fromValue=0.00960) - [0.0300](http://www.matweb.com/tools/unitconverter.aspx?fromID=148&fromValue=0.0300) cm/cm | [0.00960](http://www.matweb.com/tools/unitconverter.aspx?fromID=140&fromValue=0.00960) - [0.0300](http://www.matweb.com/tools/unitconverter.aspx?fromID=140&fromValue=0.0300) in/in | Average value: 0.0201 cm/cm Grade Count:14 |
| Melt Flow | [0.0250](http://www.matweb.com/tools/unitconverter.aspx?fromID=149&fromValue=0.0250) - [1610](http://www.matweb.com/tools/unitconverter.aspx?fromID=149&fromValue=1610) g/10 min | [0.0250](http://www.matweb.com/tools/unitconverter.aspx?fromID=149&fromValue=0.0250) - [1610](http://www.matweb.com/tools/unitconverter.aspx?fromID=149&fromValue=1610) g/10 min | Average value: 23.9 g/10 min Grade Count:466 |
| Base Resin Melt Index | [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=149&fromValue=2.00) - [20.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=149&fromValue=20.0) g/10 min | [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=149&fromValue=2.00) - [20.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=149&fromValue=20.0) g/10 min | Average value: 7.00 g/10 min Grade Count:8 |
| Spiral Flow | [15.5](http://www.matweb.com/tools/unitconverter.aspx?fromID=23&fromValue=15.5) - [55.8](http://www.matweb.com/tools/unitconverter.aspx?fromID=23&fromValue=55.8) cm | [6.10](http://www.matweb.com/tools/unitconverter.aspx?fromID=52&fromValue=6.10) - [22.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=52&fromValue=22.0) in | Average value: 33.9 cm Grade Count:49 |
| Ash | 0.000 - 0.0500 % | 0.000 - 0.0500 % | Average value: 0.0260 % Grade Count:5 |
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| **Mechanical Properties** | **Metric** | **English** | **Comments** |
| Hardness, Rockwell R | 33.0 - 66.0 | 33.0 - 66.0 | Average value: 48.7 Grade Count:7 |
| Hardness, Shore D | 50.0 - 76.0 | 50.0 - 76.0 | Average value: 64.4 Grade Count:245 |
| Ball Indentation Hardness | [35.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=35.0) - [58.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=58.0) MPa | [5080](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=5080) - [8410](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=8410) psi | Average value: 48.3 MPa Grade Count:24 |
| Tensile Strength, Ultimate | [7.60](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=7.60) - [43.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=43.0) MPa | [1100](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=1100) - [6240](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=6240) psi | Average value: 22.2 MPa Grade Count:182 |
| Film Tensile Strength at Yield, MD | [21.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=21.0) - [35.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=35.0) MPa | [3050](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=3050) - [5080](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=5080) psi | Average value: 28.9 MPa Grade Count:5 |
| Film Tensile Strength at Yield, TD | [23.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=23.0) - [37.5](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=37.5) MPa | [3340](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=3340) - [5440](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=5440) psi | Average value: 31.1 MPa Grade Count:5 |
| Tensile Strength, Yield | [11.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=11.0) - [43.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=43.0) MPa | [1600](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=1600) - [6240](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=6240) psi | Average value: 26.1 MPa Grade Count:409 |
| Film Elongation at Break, MD | 595 - 900 % | 595 - 900 % | Average value: 709 % Grade Count:5 |
| Film Elongation at Break, TD | 650 - 950 % | 650 - 950 % | Average value: 860 % Grade Count:5 |
| Elongation at Break | 3.20 - 2230 % | 3.20 - 2230 % | Average value: 575 % Grade Count:325 |
| Elongation at Yield | 3.00 - 80.0 % | 3.00 - 80.0 % | Average value: 10.7 % Grade Count:112 |
| Modulus of Elasticity | [0.565](http://www.matweb.com/tools/unitconverter.aspx?fromID=45&fromValue=0.565) - [1.50](http://www.matweb.com/tools/unitconverter.aspx?fromID=45&fromValue=1.50) GPa | [81.9](http://www.matweb.com/tools/unitconverter.aspx?fromID=78&fromValue=81.9) - [218](http://www.matweb.com/tools/unitconverter.aspx?fromID=78&fromValue=218) ksi | Average value: 0.976 GPa Grade Count:82 |
| Flexural Yield Strength | [13.8](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=13.8) - [75.8](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=75.8) MPa | [2000](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=2000) - [11000](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=11000) psi | Average value: 33.9 MPa Grade Count:14 |
| Flexural Modulus | [0.280](http://www.matweb.com/tools/unitconverter.aspx?fromID=45&fromValue=0.280) - [1.86](http://www.matweb.com/tools/unitconverter.aspx?fromID=45&fromValue=1.86) GPa | [40.6](http://www.matweb.com/tools/unitconverter.aspx?fromID=78&fromValue=40.6) - [270](http://www.matweb.com/tools/unitconverter.aspx?fromID=78&fromValue=270) ksi | Average value: 1.12 GPa Grade Count:365 |
| Compressive Yield Strength | [4.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=4.00) - [23.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=23.0) MPa | [580](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=580) - [3340](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=3340) psi | Average value: 12.6 MPa Grade Count:8 |
| Secant Modulus | [0.758](http://www.matweb.com/tools/unitconverter.aspx?fromID=45&fromValue=0.758) - [1.59](http://www.matweb.com/tools/unitconverter.aspx?fromID=45&fromValue=1.59) GPa | [110](http://www.matweb.com/tools/unitconverter.aspx?fromID=78&fromValue=110) - [230](http://www.matweb.com/tools/unitconverter.aspx?fromID=78&fromValue=230) ksi | Average value: 1.02 GPa Grade Count:28 |
| Izod Impact, Notched | [0.0200](http://www.matweb.com/tools/unitconverter.aspx?fromID=62&fromValue=0.0200) - [5340](http://www.matweb.com/tools/unitconverter.aspx?fromID=62&fromValue=5340) J/cm | [0.0375](http://www.matweb.com/tools/unitconverter.aspx?fromID=37&fromValue=0.0375) - [10000](http://www.matweb.com/tools/unitconverter.aspx?fromID=37&fromValue=10000) ft-lb/in | Average value: 0.823 J/cm Grade Count:177 |
|  | [0.224238](http://www.matweb.com/tools/unitconverter.aspx?fromID=62&fromValue=0.224238) - [5338.47](http://www.matweb.com/tools/unitconverter.aspx?fromID=62&fromValue=5338.47) J/cm @Temperature -40.0 - -18.0 °C | [0.420090](http://www.matweb.com/tools/unitconverter.aspx?fromID=37&fromValue=0.420090) - [10001.1](http://www.matweb.com/tools/unitconverter.aspx?fromID=37&fromValue=10001.1) ft-lb/in @Temperature -40.0 - -0.400 °F | Average value: 1.50 J/cm Grade Count:33 |
| Izod Impact, Unnotched | [0.300](http://www.matweb.com/tools/unitconverter.aspx?fromID=62&fromValue=0.300) - [5340](http://www.matweb.com/tools/unitconverter.aspx?fromID=62&fromValue=5340) J/cm | [0.562](http://www.matweb.com/tools/unitconverter.aspx?fromID=37&fromValue=0.562) - [10000](http://www.matweb.com/tools/unitconverter.aspx?fromID=37&fromValue=10000) ft-lb/in | Average value: 0.300 J/cm Grade Count:3 |
|  | [3.30](http://www.matweb.com/tools/unitconverter.aspx?fromID=62&fromValue=3.30) - [5338.47](http://www.matweb.com/tools/unitconverter.aspx?fromID=62&fromValue=5338.47) J/cm @Temperature -18.0 - -18.0 °C | [6.18](http://www.matweb.com/tools/unitconverter.aspx?fromID=37&fromValue=6.18) - [10001.1](http://www.matweb.com/tools/unitconverter.aspx?fromID=37&fromValue=10001.1) ft-lb/in @Temperature -0.400 - -0.400 °F | Average value: 3.30 J/cm Grade Count:5 |
| Izod Impact, Notched (ISO) | [5.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=75&fromValue=5.00) - [80.1](http://www.matweb.com/tools/unitconverter.aspx?fromID=75&fromValue=80.1) kJ/m² | [2.38](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=2.38) - [38.1](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=38.1) ft-lb/in² | Average value: 38.5 kJ/m² Grade Count:15 |
| Charpy Impact Unnotched | [1000](http://www.matweb.com/tools/unitconverter.aspx?fromID=63&fromValue=1000) J/cm² - NB | [4760](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=4760) ft-lb/in² - NB | Grade Count:8 |
| Charpy Impact, Notched | [0.200](http://www.matweb.com/tools/unitconverter.aspx?fromID=63&fromValue=0.200) - [11.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=63&fromValue=11.0) J/cm² | [0.952](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=0.952) - [52.4](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=52.4) ft-lb/in² | Average value: 1.92 J/cm² Grade Count:55 |
|  | [0.200](http://www.matweb.com/tools/unitconverter.aspx?fromID=63&fromValue=0.200) - [0.530](http://www.matweb.com/tools/unitconverter.aspx?fromID=63&fromValue=0.530) J/cm² @Temperature -30.0 - -30.0 °C | [0.952](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=0.952) - [2.52](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=2.52) ft-lb/in² @Temperature -22.0 - -22.0 °F | Average value: 0.413 J/cm² Grade Count:16 |
| Tensile Impact Strength | [34.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=75&fromValue=34.0) - [330](http://www.matweb.com/tools/unitconverter.aspx?fromID=75&fromValue=330) kJ/m² | [16.2](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=16.2) - [157](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=157) ft-lb/in² | Average value: 121 kJ/m² Grade Count:13 |
|  | [100](http://www.matweb.com/tools/unitconverter.aspx?fromID=75&fromValue=100) - [348.6](http://www.matweb.com/tools/unitconverter.aspx?fromID=75&fromValue=348.6) kJ/m² @Temperature -40.0 - -30.0 °C | [47.6](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=47.6) - [165.9](http://www.matweb.com/tools/unitconverter.aspx?fromID=38&fromValue=165.9) ft-lb/in² @Temperature -40.0 - -22.0 °F | Average value: 228 kJ/m² Grade Count:10 |
| Falling Dart Impact | [31.1839](http://www.matweb.com/tools/unitconverter.aspx?fromID=59&fromValue=31.1839) - [176.257](http://www.matweb.com/tools/unitconverter.aspx?fromID=59&fromValue=176.257) J @Temperature -40.0 - -40.0 °C | [23.0000](http://www.matweb.com/tools/unitconverter.aspx?fromID=35&fromValue=23.0000) - [130.000](http://www.matweb.com/tools/unitconverter.aspx?fromID=35&fromValue=130.000) ft-lb @Temperature -40.0 - -40.0 °F | Average value: 125 J Grade Count:3 |
| Coefficient of Friction | 0.0270 - 0.300 | 0.0270 - 0.300 | Average value: 0.136 Grade Count:3 |
| Tensile Creep Modulus, 1 hour | [400](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=400) - [570](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=570) MPa | [58000](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=58000) - [82700](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=82700) psi | Average value: 465 MPa Grade Count:4 |
| Tensile Creep Modulus, 1000 hours | [270](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=270) - [400](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=400) MPa | [39200](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=39200) - [58000](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=58000) psi | Average value: 318 MPa Grade Count:4 |
| Tear Strength Test | 23.5 - 30.0 | 23.5 - 30.0 | Average value: 28.4 Grade Count:4 |
| Elmendorf Tear Strength, MD | [0.600](http://www.matweb.com/tools/unitconverter.aspx?fromID=218&fromValue=0.600) - [1.60](http://www.matweb.com/tools/unitconverter.aspx?fromID=218&fromValue=1.60) g/micron | [15.2](http://www.matweb.com/tools/unitconverter.aspx?fromID=172&fromValue=15.2) - [40.6](http://www.matweb.com/tools/unitconverter.aspx?fromID=172&fromValue=40.6) g/mil | Average value: 0.940 g/micron Grade Count:5 |
| Elmendorf Tear Strength, TD | [1.70](http://www.matweb.com/tools/unitconverter.aspx?fromID=218&fromValue=1.70) - [23.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=218&fromValue=23.0) g/micron | [43.2](http://www.matweb.com/tools/unitconverter.aspx?fromID=172&fromValue=43.2) - [584](http://www.matweb.com/tools/unitconverter.aspx?fromID=172&fromValue=584) g/mil | Average value: 10.5 g/micron Grade Count:5 |
| Dart Drop | [1.50](http://www.matweb.com/tools/unitconverter.aspx?fromID=218&fromValue=1.50) - [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=218&fromValue=2.00) g/micron | [38.1](http://www.matweb.com/tools/unitconverter.aspx?fromID=172&fromValue=38.1) - [50.8](http://www.matweb.com/tools/unitconverter.aspx?fromID=172&fromValue=50.8) g/mil | Average value: 1.67 g/micron Grade Count:4 |
| Film Tensile Strength at Break, MD | [35.6](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=35.6) - [55.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=55.0) MPa | [5160](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=5160) - [7980](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=7980) psi | Average value: 47.1 MPa Grade Count:5 |
| Film Tensile Strength at Break, TD | [20.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=20.0) - [50.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=50.0) MPa | [2900](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=2900) - [7250](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=7250) psi | Average value: 38.5 MPa Grade Count:6 |
| Tangent Modulus | [1170](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=1170) - [1760](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=1760) MPa | [170000](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=170000) - [255000](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=255000) psi | Average value: 1310 MPa Grade Count:7 |
|  | | | |
| **Electrical Properties** | **Metric** | **English** | **Comments** |
| Electrical Resistivity | 1e+05 - [1.00e+17](http://www.matweb.com/tools/unitconverter.aspx?fromID=115&fromValue=1.00e%2b17) ohm-cm | 1e+05 - [1.00e+17](http://www.matweb.com/tools/unitconverter.aspx?fromID=115&fromValue=1.00e%2b17) ohm-cm | Average value: 1.26e+16 ohm-cm Grade Count:19 |
| Surface Resistance | [10000](http://www.matweb.com/tools/unitconverter.aspx?fromID=141&fromValue=10000) - [1.00e+14](http://www.matweb.com/tools/unitconverter.aspx?fromID=141&fromValue=1.00e%2b14) ohm | [10000](http://www.matweb.com/tools/unitconverter.aspx?fromID=141&fromValue=10000) - [1.00e+14](http://www.matweb.com/tools/unitconverter.aspx?fromID=141&fromValue=1.00e%2b14) ohm | Average value: 3.36e+13 ohm Grade Count:14 |
| Dielectric Constant | 2.10 - 3.00 | 2.10 - 3.00 | Average value: 2.41 Grade Count:17 |
| Dielectric Strength | [19.7](http://www.matweb.com/tools/unitconverter.aspx?fromID=81&fromValue=19.7) - [150](http://www.matweb.com/tools/unitconverter.aspx?fromID=81&fromValue=150) kV/mm | [500](http://www.matweb.com/tools/unitconverter.aspx?fromID=138&fromValue=500) - [3810](http://www.matweb.com/tools/unitconverter.aspx?fromID=138&fromValue=3810) kV/in | Average value: 60.5 kV/mm Grade Count:18 |
| Dissipation Factor | 0.0000400 - 0.00100 | 0.0000400 - 0.00100 | Average value: 0.000307 Grade Count:17 |
| Comparative Tracking Index | [600](http://www.matweb.com/tools/unitconverter.aspx?fromID=146&fromValue=600) V | [600](http://www.matweb.com/tools/unitconverter.aspx?fromID=146&fromValue=600) V | Average value: 600 V Grade Count:10 |
|  | | | |
| **Thermal Properties** | **Metric** | **English** | **Comments** |
| CTE, linear | [20.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=5&fromValue=20.0) - [225](http://www.matweb.com/tools/unitconverter.aspx?fromID=5&fromValue=225) µm/m-°C | [11.1](http://www.matweb.com/tools/unitconverter.aspx?fromID=4&fromValue=11.1) - [125](http://www.matweb.com/tools/unitconverter.aspx?fromID=4&fromValue=125) µin/in-°F | Average value: 142 µm/m-°C Grade Count:26 |
| Thermal Conductivity | [0.288](http://www.matweb.com/tools/unitconverter.aspx?fromID=136&fromValue=0.288) - [0.480](http://www.matweb.com/tools/unitconverter.aspx?fromID=136&fromValue=0.480) W/m-K | [2.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=10&fromValue=2.00) - [3.33](http://www.matweb.com/tools/unitconverter.aspx?fromID=10&fromValue=3.33) BTU-in/hr-ft²-°F | Average value: 0.396 W/m-K Grade Count:9 |
| Melting Point | [118](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=118) - [137](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=137) °C | [244](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=244) - [279](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=279) °F | Average value: 131 °C Grade Count:115 |
| Crystallization Temperature | [108](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=108) - [120](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=120) °C | [226](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=226) - [248](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=248) °F | Average value: 115 °C Grade Count:28 |
| Maximum Service Temperature, Air | [70.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=70.0) - [120](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=120) °C | [158](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=158) - [248](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=248) °F | Average value: 96.8 °C Grade Count:10 |
| Deflection Temperature at 0.46 MPa (66 psi) | [42.8](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=42.8) - [93.3](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=93.3) °C | [109](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=109) - [200](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=200) °F | Average value: 72.8 °C Grade Count:135 |
| Deflection Temperature at 1.8 MPa (264 psi) | [37.6](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=37.6) - [86.1](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=86.1) °C | [99.7](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=99.7) - [187](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=187) °F | Average value: 49.8 °C Grade Count:52 |
| Vicat Softening Point | [64.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=64.0) - [194](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=194) °C | [147](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=147) - [381](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=381) °F | Average value: 119 °C Grade Count:284 |
| Minimum Service Temperature, Air | [-200](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=-200) - [-60.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=-60.0) °C | [-328](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=-328) - [-76.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=-76.0) °F | Average value: -137 °C Grade Count:7 |
| Brittleness Temperature | [-180](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=-180) - [76.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=76.0) °C | [-292](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=-292) - [169](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=169) °F | Average value: -73.4 °C Grade Count:150 |
| Flammability, UL94 | HB | HB | Grade Count:24 |
| Oxygen Index | 17.0 - 20.0 % | 17.0 - 20.0 % | Average value: 18.9 % Grade Count:11 |
|  | | | |
| **Optical Properties** | **Metric** | **English** | **Comments** |
| Yellow Index | -1.00 - 4.00 % | -1.00 - 4.00 % | Average value: 1.98 % Grade Count:25 |
|  | | | |
| **Processing Properties** | **Metric** | **English** | **Comments** |
| Processing Temperature | [82.2](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=82.2) - [280](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=280) °C | [180](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=180) - [536](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=536) °F | Average value: 213 °C Grade Count:26 |
| Nozzle Temperature | [160](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=160) - [275](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=275) °C | [320](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=320) - [527](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=527) °F | Average value: 241 °C Grade Count:26 |
| Melt Temperature | [130](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=130) - [280](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=280) °C | [266](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=266) - [536](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=536) °F | Average value: 221 °C Grade Count:65 |
| Mold Temperature | [5.00](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=5.00) - [65.6](http://www.matweb.com/tools/unitconverter.aspx?fromID=2&fromValue=65.6) °C | [41.0](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=41.0) - [150](http://www.matweb.com/tools/unitconverter.aspx?fromID=3&fromValue=150) °F | Average value: 23.2 °C Grade Count:13 |
| Injection Pressure | [2.76](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=2.76) - [103](http://www.matweb.com/tools/unitconverter.aspx?fromID=108&fromValue=103) MPa | [400](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=400) - [15000](http://www.matweb.com/tools/unitconverter.aspx?fromID=123&fromValue=15000) psi | Average value: 26.5 MPa Grade Count:4 |