



DURAVAR® “XL” UHMW-PE
Cross-Linked Ultra-High Molecular Weight Polyethylene
Produced Utilizing Advanced Ram Extrusion Technology

PROPERTIES TABLE

Information Provided Below is a Collection of Multiple Sourcing and Believed to be Accurate

| TYPICAL | TEST | U/M | DURAVAR® “XL” |
|--|-------------|------------------------|------------------------|
| PHYSICAL PROPERTIES | | | Cross-Linked |
| PHYSICAL | | | |
| Intrinsic Viscosity (IV) | ASTM D-4020 | dl/gm | 28 – 30 |
| Density | ASTM D- 792 | Gm/cm ³ | 0.935 – 0.945 |
| Hardness | ASTM D-2240 | Shore-D | > 67 |
| Water Absorption | ASTM D- 570 | % | Nil |
| MECHANICAL | | | |
| Yield Point | ASTM D- 638 | psi | > 3200 |
| Tensile Break | ASTM D- 638 | psi | > 5900 |
| Elongation at Break | ASTM D- 638 | % | > 400 |
| Tensile Modulus | ASTM D- 638 | psi | 154000 |
| Flexural Modulus | ASTM D- 790 | psi | 92000 |
| Izod Impact | ASTM D- 256 | ft-lb/in ² | 50 |
| Tensile Impact | ASTM D-1822 | ft-lbs/in ² | > 1150 |
| Coefficient of Friction – Static (Polished Steel) | ASTM D-1894 | --- | .15 – .20 |
| Coefficient of Friction – Dynamic (Polished Steel) | ASTM D-1894 | --- | .10 – .14 |
| THERMAL | | | |
| Coefficient of Linear Thermal Expansion | ASTM D- 696 | In/in/°F | 7.8 x 10 ⁻⁵ |
| Compressive Modulus | ASTM D- 621 | % @ 1000 psi | > 83500 |
| Compressive Deformation | ASTM D- 621 | % @ 1000 psi | 6 – 8 |
| Application Temperature – Maximum | ASTM D- 648 | °F | < 200 |
| Melting Range | DSC | °F | > 278 |
| ELECTRICAL | | | |
| Dielectric Strength (Short time, 1/8 inch thick) | n/a | n/a | n/a |
| Dielectric Constant (@ 1 kHz) | n/a | n/a | n/a |
| Dissipation Factor (@ 1 kHz) | n/a | n/a | n/a |
| Static Decay Time* | FTS - 101C | Seconds | --- |
| Volume Resistivity | ASTM D- 257 | ohms-cm | 10 ¹⁵ |
| Surface Resistivity | ASTM D- 257 | ohms | 10 ¹⁵ |

This Chart Represents Typical Values for Virgin Crosslinked UHMW-PE

Tech Data-XL 072513

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Artek, Inc. – 3311 Enterprise Rd. – Fort Wayne, Indiana 46808
 Phone #: (800) 762-6808 Fax #: (260) 484-6914 Website: artek-inc.com