



Description: UHMW is ultra high molecular weight polyethylene. UHMW is lightweight and longwearing, providing excellent performance in numerous applications requiring impact and abrasion resistance, non-stick properties or noise reduction. UHMW imparts no undesirable taste, smell, or discoloration. This material requires no special care and can be cleaned with water, steam, detergents, or disinfectants. Key benefits include abrasion and impact resistance. The low coefficient of friction allows it to release food particles and other substances, preventing build-ups and bottlenecks. It is chemically inert, self-lubricating, FDA/USDA approved, and machinable and performs well in extreme low temperatures.

Thermal and Mechanical Properties:

Density (<i>g/cm³</i>)		
ASTM	D1505	.930
Tensile Properties		
Maximum Strength (PSI)		
ASTM	D638	>2,800
Elongation at Break (%)	D638	>450
Flexural Modulus (PSI)		
ASTM	D790	160,000
Durometer, Shore D		
ASTM	D2240	62
Izod Impact Strength J/M		
ASTM	D256	No Break
Brittleness Temp. °C		
ASTM	D746	<-38
Vicat Softening Point °C		
ASTM	D1525	128
Heat Deflection Temp. 66PSI °C		
ASTM	D648	82
Coefficient of Linear Thermal Expansion (<i>in/in/degrees F</i>)		
ASTM	D696	1.1x10 ⁻⁴

Material	Sand Slurry Test (Relative Volumetric Abrasion)
King Hy-Pact® UHMW	12
King Hy-Pact® VH	40
HDPE	110

*Tested in a 50/50 mix of sand/water slurry for 8 hours at 1700 RPM.

The values quoted are typical lab results and must not be regarded as supply specification.

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