



## King Hy-Pact® VHMW Sheet



### The Super Tough Industrial Polymer Sheet

King Hy-Pact® is the super tough industrial polymer sheet that is environmentally stabilized with excellent physical properties and is a cost effective material. Tests have shown after 2,000 hours of UV exposure, King Hy-Pact outperforms both UV stabilized HDPE and UHMW with superior toughness in wear resistance, flexibility and high-impact strength. It has a clean white color with a smooth, non-skived finish for better material flow. Applications for King Hy-Pact include, but are not limited to, food processing chutes, star wheels, machine products, snowplow blades, and dock fenders. King Hy-Pact is a product of a proprietary process called K-Stran™, the most advanced manufacturing process for producing sheets with widths up to 72", tight tolerances, custom colors and sheet sizes, and small minimum requirements. King Hy-Pact is the smart choice for many high abuse applications requiring superior properties, outstanding flatness and a smooth surface while providing significant cost savings.

### Industrial Products



**KING**  
**HY-PACT®**

### Applications

- Abrasion and Wear
- Bin and Mixer Linings
- Chain and Belt Guides
- Conveyor Wear and Guide Rails
- Dock Fenders
- Food Processing
- Gears
- Low Temp. Applications
- Machine Parts
- Material Handling
- Sprockets
- Star Wheels
- Truck Bedliners

## Specifications

### Standard Sheet Size

**in:** 48" x 120"

**mm:** 1219mm x 3048mm

**Custom widths (up to 72")**

### Standard Gauges

<b>in:</b>	1/8"	1/4"	3/8"	1/2"	3/4"	1"
<b>mm:</b>	3.175mm	6.35mm	9.525mm	12.7mm	19.05mm	25.4mm

### Approximate Weight

<b>lbs:</b>	25 lbs	50 lbs	75 lbs	99 lbs	149 lbs	198 lbs
<b>kg:</b>	11.3398kg	22.6796kg	34.0194kg	44.9056kg	67.5853kg	89.8113kg

## Standard Color



White

\*Note: Color accuracy can vary considerably on computer monitors and printers. Please consult your distributor for a product sample before making critical color choices.

### Tolerance information:

Gauges 1/8" through 1" ± 5% | Length and width plus only at room temperature  
Custom sheet sizes, gauges and colors available

Properties	Units	ASTM	Nominal Values
Density	g/cc	D1505	0.95
Tensile Strength @ Yield	p.s.i.	D638	>4,100
Elongation @ Yield	%	D638	9.6
Flexural Modulus	p.s.i.	D790	186,000
Durometer	Shore D	D2240	65
Izod Impact	ft.lbs./in <sup>2</sup>	D256	16.6
Brittleness Temp.	°C (°F)	D746	<-90°C (<-130°F)
Vicat Softening	°C (°F)	D1525	130°C (266°F)
Heat Deflection Temp. 66 p.s.i.	°C (°F)	D648	75°C (167°F)
Coefficient of Linear Expansion	in/in/°f	D696	6.0 x 10 <sup>-5</sup>

QUV Accelerated Weathering Tester	King StarBoard® UV Protected		King Hy-Pact® UV Protected		UHMW UV Protected		ASTM
	Unexposed	2,000 hours of exposure	Unexposed	2,000 hours of exposure	Unexposed	2,000 hours of exposure	
Tensile @ yield 70 F (psi)	4,260	4,250	<b>4,100</b>	<b>4,100</b>	3,010	2,970	D638
Elongation @ yield 70 F (%)	9.2	9.1	<b>9.6</b>	<b>9.6</b>	16	3.2	D638
Tensile @ Break 70 F (psi)	690	680	<b>1,930</b>	<b>1,440</b>	No Break	2,940	D638
Elongation @ Break 70 F (%)	160	155	<b>260%</b>	<b>210%</b>	No Break	3.4%	D638
Taber Index	21	45	<b>5</b>	<b>12</b>	2	182	D4060
IZOD notch 70 F (ft lbs/sq in)	4.1	3.9	<b>16.6</b>	<b>15.7</b>	20.02	0.84	D256
Coefficient of Friction - Kinetic	0.0888	0.0888	<b>0.107</b>	<b>0.107</b>	0.129	0.129	D1894
Coefficient of Friction - Static	0.0832	0.0832	<b>0.102</b>	<b>0.102</b>	0.102	0.102	D1894

All values are determined on specimens prepared according to ASTM Standards.

King HY-PACT® is made entirely from FDA approved materials.

**Hy-Pact® Sheet is available from Professional Plastics, Inc.**

**Order Online:** [www.professionalplastics.com/King\\_Hy-Pact\\_UHMW](http://www.professionalplastics.com/King_Hy-Pact_UHMW)

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