



## Industrial Products



## The Super Tough Industrial Polymer Sheet

King Hy-Pact® is the super tough industrial polymer sheet that is environmentally stabilized with excellent physical properties. It is the product of a proprietary process called K-Stran™, the most advanced manufacturing process of quality sheets with tight tolerances and custom widths up to 60". King Hy-Pact® has a clean white color with a smooth, non-skived finish on both sides of sheet for better material flow. It is also available in black. 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. 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 compared to UHMW. Applications include, but are not limited to, food processing chutes, star wheels, fabricated parts, snowplow blades and dock fenders. The material is easy to machine and fabricate.

# <sup>KING</sup>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 Bed Liners

## Specifications

### Standard Sheet Size

**in:** 48" x 120"

**mm:** 1219 mm x 3048 mm

### Custom widths (up to 60")

### Standard Gauges (Black 1/2" and 3/4" only)

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

### Approximate Weight

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

### Tolerance information:

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

## Standard Colors



White



Black

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

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 Temp.	°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>
Miller Number / SAR Reults	SAR	G75	3209
Taber	Index	D4060	5

### King StarBoard®

UV Protected

### King Hy-Pact®

UV Protected

### UHMW

UV Protected

### ASTM

QUV Accelerated Weathering Tester	Unexposed   2,000 hours of exposure		Unexposed   2,000 hours of exposure		Unexposed   2,000 hours of exposure		ASTM
	Tensile @ yield 70 F (psi)	4,260	4,250	<b>4,100</b>	<b>4,100</b>	3,010	
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
Miler Number/SAR Results	8643.3	---	<b>3209.0</b>	---	453.9	---	G75

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

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



King Plastic Corporation

Our Innovation. Your Imagination.®

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MADE IN USA