



## King Hy-Pact® FAQ

### What is King Hy-Pact®?

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.

### How does King Hy-Pact® compare to HDPE and UHMW?

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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



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**What type of finish?**

King Hy-Pact® has a smooth, non-skived finish on both sides of the sheet for better material flow.

**What colors are available?**

King Hy-Pact® is available in white and in black.

**Can you custom color match?**

No.

**What is required for custom orders?**

Please call Customer Service at 941.493.5502.

**What sizes are available?**

King Hy-Pact® standard sheet size is 48" x 120". Standard gauges are 1/8", 1/4", 3/8", 1/2", 3/4" and 1". Custom sheet sizes and gauges available upon request. Please call Customer Service at 941.493.5502.

**Is King Hy-Pact® available with an antimicrobial?**

No.

**Is King Hy-Pact® available with a flame retardant?**

No. King Hy-Pact® Flammability Rating is UL94 HB.

**Can you add any additive to King Hy-Pact®?**

Yes. Anti-Static.

**What are the features and benefits of King Hy-Pact®?**

- Environmentally stabilized – UV stabilized and waterproof
- Wear resistance
- Impact resistance
- Chemical resistance
- Low coefficient of friction
- No moisture absorption



## **How can the material be fabricated and finished?**

Use standard woodworking tools: table saws, table routers, drills, blades and bits. Carbide router bits with two to four flutes are recommended. For more information, please refer to the fabrication brochures.

## **How to clean and maintain?**

- Only routine cleaning with common detergents is required
- Nylon scrub pads and brushes should be used with care because excessive force can mar the finish
- Persistent stains will usually go away if you soak the area with bleach. Do not use 100% chlorine used to treat swimming pools.
- To clean a petroleum stain such as grease or oil; use a citrus cleaner, alcohol or mineral spirits.
- For severe petroleum-based stains, spray with WD40®. Then use toluene or acetone and a white nylon scrub pad (colored pads release staining dyes when combined with acetone).
- Do not use MEK, turpentine or naphtha solvent.
- Automotive silicone spray products or household furniture polish can help hide scratches on the surface. To prevent slipping, do not use these products on walking surfaces.

## **How to care and store?**

- Store the sheets flat on a level surface
- Keep away from teak oil and other products that can stain the finish
- Use china markers or water-based markers to draw patterns
- Pen marks can usually be removed with household cleaners
- Keep away from heat sources that exceed 180°F
- Because there is no grain, parts can be cut from any area of the sheet
- Save the scraps for small parts, shims, spacers and plugs
- Remnants may be eligible for recycling; contact your distributor or King Plastic Corporation for details

## **What are common applications?**

- Food Processing Guides
- Star Wheels
- Machine Parts



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- Snowplow Blades
- Dock fenders

## **Is King Hy-Pact® FDA approved?**

Yes.

## **Can I use a CNC machine?**

Yes.

## **Will the material produce dust when fabricating?**

No, only small shavings that can be recycled.

## **Can I use glue or paint?**

Gluing is not recommended. Because King Hy-Pact® sheet products are designed to resist water and grime, they cannot be painted and the use of adhesives is not recommended. It is preferable to mechanically fasten or weld. Specialized welding equipment and rods, designed for use with polymer sheets, are available.

## **Why use King Hy-Pact®?**

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.

## **Where is King Hy-Pact® used?**

King Hy-Pact® is a super tough industrial polymer utilized in food processing, packaging, handling and many more markets.