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. King Hy-Pact® polymer sheet is NSF LISTED to meet requirements of commercial food processing operations for direct and indirect food contact.

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 Bed Liners

Specifications

Standard Sheet Size
in: 48" x 120"
mm: 1219 mm x 3048 mm

Custom widths (up to 60")

CURBELL PLASTICS
1-888-CURBELL
www.curbellplastics.com
Curbell Plastics is a proud supplier of King Plastic Corporation materials.

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

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

Approximate Weight

lbs:	25 lbs	50 lbs	75lbs	99 lbs	149 lbs	198 lbs
kg:	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.^{2}	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^{-5}
Miller Number/SAR Results	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**	
Tensile @ Yield 70°F (psi)	4,260 | 4,250	**4,100 | 4,100**	3,010 | 2,970	D638
Elongation @ Yield 70°F (%)	9.2 | 9.1	**9.6 | 9.6**	16 | 3.2	D638
Tensile @ Break 70°F (psi)	690 | 680	**1,930 | 1,440**	No Break | 2,940	D638
Elongation @ Break 70°F (%)	160 | 155	**260% | 210%**	No Break | 3.4%	D638
Taber Index	21 | 45	**5 | 12**	2 | 182	D4060
IZOD notch 70°F (ft lbs/sq in)	4.1 | 3.9	**16.6 | 15.7**	20.02 | 0.84	D256
Coefficient of Friction - Kinetic	0.0888 | 0.0888	**0.107 | 0.107**	0.129 | 0.129	D1894
Coefficient of Friction - Static	0.0832 | 0.0832	**0.102 | 0.102**	0.102 | 0.102	D1894
Miller Number/SAR Results	8643.3 | ---	**3209.0 | ---**	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 Hy-Pact® is NSF LISTED for Standard 51.

King Plastic Corporation
Our Innovation. Your Imagination.®

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