

WORKS LIKE WOOD

LASTS A LIFETIME



KING
STARBOARD **ST**

Imagine the possibilities for your business

King Plastic Corporation pioneered the first marine-grade polymer sheet, King StarBoard®, which remains the dominant brand in the marine industry today. For over 50 years, our innovations, combined with our customers' imaginations, have led to the creation of entirely new categories of polymer sheet products. Now we're bringing marine-grade toughness to the building trades market.

Cabinet and furniture professionals everywhere are discovering exciting new business opportunities in the fast-growing outdoor living and commercial markets, thanks to a super-tough polymer building sheet called King StarBoard® ST.

King StarBoard® ST is one of our most scratch-resistant polymer sheets making it an excellent construction material for cabinetry, case goods and architectural partitions. It is environmentally stabilized to withstand the harshest outdoor conditions. King StarBoard® ST will not rust, delaminate, or rot when exposed to humidity or water. The polymer sheet never needs painting or refinishing, works like wood and is easy to fabricate using common woodworking tools and techniques.

Create an outdoor living space for your customers that's tough enough to last a lifetime, yet luxurious enough for even the most elaborate homes. King StarBoard® ST polymer building sheets last the lifetime of the application and are available in today's most popular colors.

Common applications include:

- Case Goods
- Concession Stands
- Dugout Areas in Sports Arenas
- Equipment
- Furniture
- Indoor and Outdoor Cabinets
- Kick Plates
- Lockers
- Outdoor Kitchens
- Playgrounds
- Pool Areas
- Tabletops and Counters



King StarBoard® ST is:

- One of our most scratch-resistant polymer sheets
- The polymer sheets will not rust, delaminate, or rot
- Environmentally stabilized and made to last a lifetime
- Resistant to common molds and mildew
- Easy to clean and chemical-resistant
- Never needs refinishing or painting
- Ideal for all types of commercial and residential outdoor cabinets, furniture and storage
- Minor expansion and contraction must be accounted for in the designs
- Easy to fabricate using common woodworking tools and techniques
- No glue required
- Works like wood
- Designed for excellent screw holding strength and can be bent using back-cut techniques and heat
- Perfect material for using a CNC machine for routing the cabinet face
- Protected with masking to prevent damage during fabrication
- Parts can be welded together
- Cabinets made from King StarBoard® ST may qualify for LEED rating points
- Over four times the joint strength rating of MDF.
(Butt joint: MDF glued and screwed together, King StarBoard® ST is only screwed together)



Fabrication and Finishing

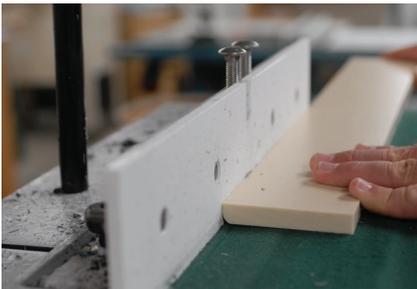
- Use standard woodworking tools: table saws, table routers, drills, blades and bits. Carbide router bits with two to four flutes are recommended.



- With a 1/2" diameter router bit, feed rates of 12-16 feet per minute are normal. Rates must be slower for material that is 1/2" thick or thicker. Larger bits have higher tip speeds and RPM adjustments may be necessary.



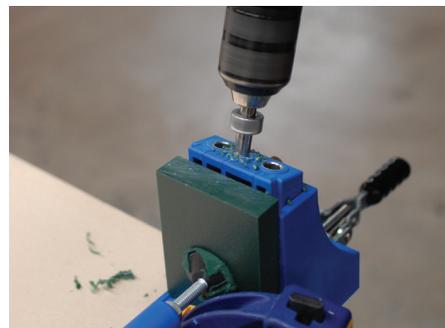
- Cut with a circular saw at 1275 RPM using a 40-60-tooth carbide blade. Expect a feed rate of 12-16 feet per minute.
- No surface finishing is required. King StarBoard® ST comes with a textured matte gloss finish on both sides.



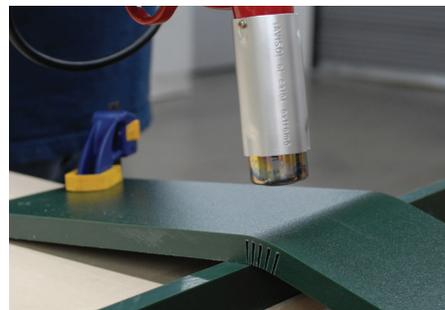
- Edges may be finished with a router. Sanding may be used, but a very fine sandpaper is required to avoid creating small, hard-to-clean scratches.



- King StarBoard® ST polymer sheets are designed to resist water and grime, and cannot be painted or glued. The use of adhesives is not recommended. If gluing is absolutely necessary, products such as 3M's Scotch-Weld DP-8005 and Lord Corporation's 7540-AB have been used, but do not provide an architectural bond. Special welding rods, designed for use with polymer sheets, are available.

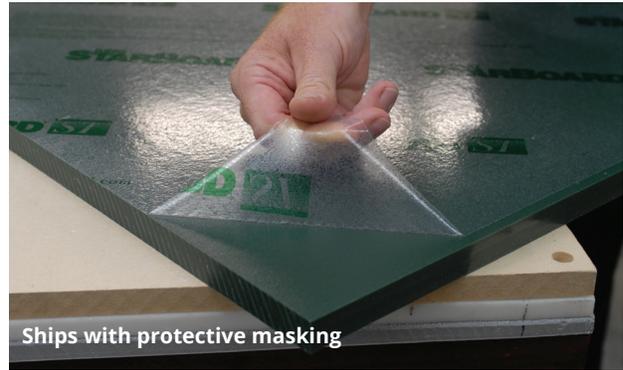


- Use standard fasteners with oversized holes. Drill pilot holes first, followed by an oversized hole to allow for expansion and contraction. Use press-in threaded inserts for applications where repetitive motion is expected, such as a door hinge.

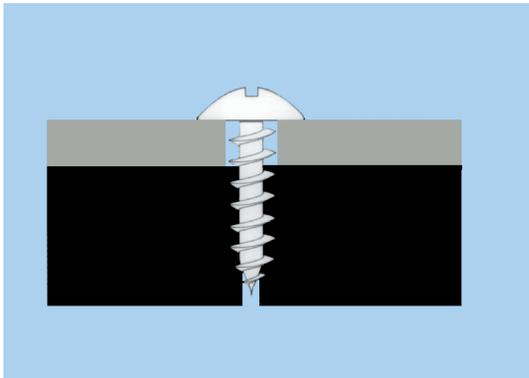


- Mild heat applied with a heat gun will help mold the sheets for curved installations. Sharper corners must be notched and then heat shaped.
- Hide fasteners with plugs made from King StarBoard® ST using a standard wood-plug cutter. Make the plug slightly larger than the hole for a press fit.
- Because 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.

Care and Storage



- Store the sheets flat on a level surface.
- Do not stack more than two pallets high.
- 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.



- Test applications for unforeseen complications, such as expansion/contraction issues (note: different colors react differently to heat). King StarBoard® ST contracts and expands at a rate of 6×10^{-5} in./in./F°, changing approximately 1/32 inch for every foot of length or width over a 40F° temperature change.

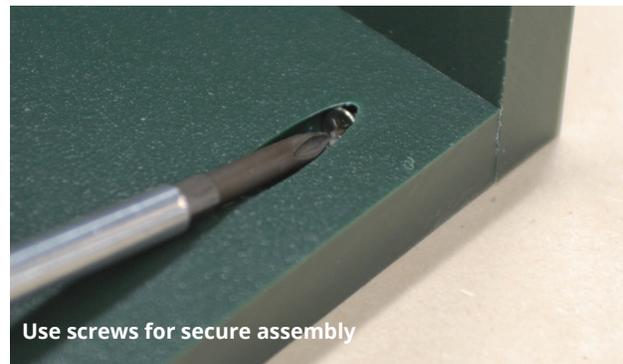
Cleaning and Maintenance



- King StarBoard® ST sheets are environmentally stabilized to maintain their color and finish for the lifetime of the application. Only routine cleaning or pressure washing with common detergents is required.
- Nylon scrub pads and brushes should be used with care because excessive force can mar the finish.
- For resistant stains, apply bleach and allow it to soak in.
- Use citrus cleaner, alcohol or mineral spirits to remove grease or oil stains.
- Automotive silicone spray products or household furniture polish can help to hide scratches in the surface. To prevent slipping, do not use these products on walking surfaces.

Masking

- King StarBoard® ST is protected on one side with clear .002" (50 microns) thick masking.
- Testing has shown that leaving the masking on while machining, fabricating and routing helps ensure a pristine finish.



Easy to fabricate with standard woodworking tools

You Will

- Cut it, bend it or fabricate it
- Sand it and engrave it
- Use standard woodworking tools
- Make plugs from it
- Create a finished edge
- Heat-weld it
- Easily clean it (including pressure wash)

It Will

- Hold mechanical fasteners
- Never need maintenance
- Finish cleanly
- Contract & expand
- Resist most stains

It Is

- Environmentally stabilized
- A "one-step" material, easy to fabricate
- Available in nine standard colors
- Impervious to most chemicals
- Made to last a lifetime
- Protected with a masking on one side
- Recyclable
- An ideal material for any "wet" areas
- Available in a 48" x 96" sheet

It Has

- A matte gloss finish on both sides
- Solid color throughout the sheet
- Color and tolerance consistency
- A thousand uses

You Won't

- Paint it or use normal glues
- Stain it or damage it with fuel or oil spills
- Produce dust when fabricating it

It Will Not

- Rust, delaminate, or rot
- Retain odors, splinter or fade
- Easily scratch, scuff or wear

It Is Not

- Expensive
- An appropriate countertop material

It Does Not Have

- A smooth texture
- A grain that needs matching



The specifications and quality you demand

KingStarBoard® ST

Standard Sheet Size

in:	48" x 96"
mm:	1219 mm x 2438 mm

Standard Gauges

in:	1/4"	3/8"	1/2"	3/4"	1"	1-1/2"
mm:	6.4 mm	9.53 mm	12.7 mm	19 mm	19 mm	25.4 mm

Approximate Weight

lbs:	40 lbs	60 lbs	80 lbs	120 lbs	160 lbs	240 lbs
mm:	18 kg	27 kg	36 kg	54.4 kg	72.5 kg	108.6 kg

Gauges 1/4" up to 1-1/2" ±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	0.963
Tensile Strength @ Yield	psi	D638	>4,500
Tensile Modulus	psi	D638	318,000
Elongation @ Break	%	D638	>600
Elongation @ Yield	%	D638	8.8
Flexural Modulus	psi	D790	225,000
Flexural Stress @ 5% Strain	psi	D790	4,480
Compressive Properties 10% Strain	psi	D695	4,790
Durometer	Shore D	D2240	69
Tensile Impact	ft.lbs./in. ²	D1822	99
Izod Impact Resistance	ft.lbs./in. ²	D256	1.4
Brittleness Temp.	°C (°F)	D746	<-75°C (<-103°F)
Vicat Softening Temp.	°C (°F)	D1525	132°C (270°F)
Heat Deflection Temp. 66 psi	°C (°F)	D648	84°C (183°F)
Screw and Nail Withdrawal	lbs	D1761	755 & 55
Flammability	Rating	UL94	HB

All values are determined on specimens prepared according to ASTM.

Nominal values should not be interpreted as specifications.

King StarBoard® ST is made entirely from FDA and USDA approved material.

King StarBoard® ST meets ASTM D4976.

King StarBoard® ST contains no VOC's.

Standard Colors



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

Now Upgradable to King MicroShield®

Many of King Plastic Corporation's polymer sheets, slabs and massive shapes can be upgraded to King MicroShield® with an advanced antimicrobial technology for protecting the product surface against stain and odor causing bacteria, algae and fungi.*



* For bacteriostatic, fungistatic, & algistatic properties. This product is exempt from registration under 40 CFR 152.25(a). King MicroShield® effectiveness verified by ISO and ASTM standards. This product does not protect users or others from disease-causing bacteria. Always clean this product thoroughly after use.



Our Innovation. Your Imagination.®

King Plastic Corporation began as a small, family enterprise. Founded in 1968, King Plastic Corporation is a leading manufacturer of quality polymer sheets, slabs and massive shapes—including several products pioneered by the company. Its polymers are sold worldwide through a network of top plastics distributors to customers who fabricate products for the marine industry (King StarBoard® brand), signage, food service, healthcare, architectural, industrial and other markets. The company headquarters is a 250,000 square-foot manufacturing facility in North Port, Florida. The King family still maintains independent ownership and control. The same values that made the company so successful in the past still prevail today.



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