

Kirei Board

zen modern



Modular Console | Designer: Paul Basile

The Tao of Kirei:

Pronounced "Key'-ray," Kirei is the Japanese character signifying "clean" or "beautiful."

We have chosen Kirei as the name for our company to reflect our dedication to the principles of elegant, sustainable design.



Sink Wrap | Zapher Residence

Kirei Board is a strong, lightweight, durable, environmentally friendly substitute for wood—usable in furniture, cabinetry, casework, and interior design elements. Manufactured from reclaimed sorghum straw and no-added-formaldehyde adhesive, Kirei board brings a beautiful new element to modern interior design.

Use **Kirei Board** in architectural, millwork and finished product applications:

Architectural Millwork	Interior Design
Wall Covering	Cabinetry
Retail Displays	Flooring
Furniture	Restaurant
Finished Products	Hotel

Kirei and LEED

Kirei design elements can help your projects gain LEED credit for environmentally friendly construction.



Signature 2.0 Cabinet
Iannone Design

kirei™

Distributed By:

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Kirei Board Specifications:

Kirei Board is a composite panel board manufactured from reclaimed stalks of the sorghum plant, poplar wood bonding layers and KR Bond, an adhesive that emits no formaldehyde. Strong, lightweight and environmentally friendly, Kirei Board has been in use for wall covering, cabinetry, furniture, flooring and other decorative and finished products since 1995.

Dimensions:

Sheet Size

6mm: 305mm x 1820mm
(12.0" x 71.7")

10mm, 20mm, 30mm: 910mm x 1820mm
(35.8" x 71.7")

Thickness

6mm (0.24")
10mm (0.39")
20mm (0.79")
30mm (1.18")

Sheet Weight

(1'x6' sheet)	6mm	4.5 lbs
(3'x6' sheet)	10mm	19.0 lbs
(3'x6' sheet)	20mm	35.0 lbs
(3'x6' sheet)	30mm	45.0 lbs

Density

6mm	38.1 lbs/ft3
10mm	32.1 lbs/ft3
20mm	29.6 lbs/ft3
30mm	25.4 lbs/ft3

Physical Properties:

Modulus of Rupture	1800mm	200kg3/cm2
	900mm	75 kg3/cm2
Modulus of Elasticity	1800mm	2.80 x 10 kg3/cm2
	900mm	0.78 x 10 kg3/cm2

Internal Bond	1.5 kg/cm2
Screw Holding Power	Face 25 Kg
	Edge 10 Kg

Fire rating: Class C
(May reach Class A using commercial flame retardants)
Flame spread index 130 (ASTM E84)



Environmental Benefits

Kirei Board reduces forest clear-cutting, air pollution and landfill use. The sorghum stalks used in the manufacture of Kirei Board are a rapidly renewable resource left after the edible portion of the plant is harvested.

Reduced Waste

Until now, these stalks have been discarded or burned, adding to landfill waste and pollution. Kirei Board helps reduce this waste and ease deforestation by substituting for wood.

Zero VOC

In addition, Kirei Board is made with a no-added-urea-formaldehyde adhesive that does not emit toxic formaldehyde.

Kirei Board can be an excellent way to help your projects qualify for LEED credit for environmentally friendly construction.

Kirei Board Adhesive

KIREI board is manufactured using KR Bond, a water-based polymer-isocyanate adhesive. Formaldehyde-free KR Bond does not contribute harmful Volatile Organic Compounds (VOCs) to the indoor atmosphere. Testing according to Japanese Government standard JIS A 6922-2003 resulted in 0.0 mg/L formaldehyde emission.



Modular Storage Unit | Designer: Julia Palomaki

Fabrication Guidelines

Kirei Board is machinable using standard fabricating techniques applicable for wood-based products.

Cutting:

For best results use a high-quality saw blade, feeding the material at a uniform speed through the saw. Solidly back panels to prevent chipping along kerf on the saw tooth exit side. Finishing material with a sealer coat can help avoid chipping along saw cuts.

Drilling:

A high-speed drill is recommended. To avoid chipout or breakage on the exit side, back the panel with scrap material.

Routing:

A speed of 20,000 RPM is recommended using double-fluted router bits.

Filling:

Standard wood putty can be used to fill any chips or holes caused by cutting and sanding. Select a color that best matches the color of Kirei Board or your finish color.

Fastening:

All fastening methods may be used, including nail, staples, rivets, screws, bolts, glue or combination. Type A or AB, sheet metal, twin fast types and fully threaded screws designed for use in particle board offer better withdrawal resistance than wood screws. Pre-drilled pilot holes are recommended for the size screw used. If nailing, use spiral or ring shank nails for extra holding power.
(Note: Nailing or screwing into edge grain may result in lower screw holding power due to fewer cross-layers being engaged.)

Finishing:

Kirei Board panels can be filled, sealed, painted, stained or varnished with most commercial finishing materials including short and medium oil length primers, fillers, lacquers, and synthetic base coats and topcoats and high temperature bake and acrylic and epoxy systems. The panels should be at stable room temperature (70 degrees F and higher) when coated. Kirei recommends Low-VOC emission finishes.