

Kirei WheatBoard

clean, green MDF



Kirei WheatBoard is the answer to formaldehyde-emitting wood MDF products. With working characteristics meeting and often surpassing those of commercially available MDF or particle board, plus renewable source materials and non-toxic adhesives, Kirei WheatBoard gives you a clean slate to build what your mind designs. Projects and products can receive **LEED™** credit for rapidly renewable material, recycled content, and indoor air quality.

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

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

IT'S WHAT'S INSIDE.

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.



kirei™

For purchasing information:

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Kirei WheatBoard Specifications:

Use Kirei WheatBoard in millwork, cabinetry and finished product applications for a renewable, non-toxic alternative to MDF or particleboard. Kirei WheatBoard can be painted or laminated with a wide variety of surface treatments including our Kirei Bamboo Veneers.

Dimensions:

Sheet Size	1220mm x 2440mm (48"x96")
Standard Thicknesses	12.7mm (1/2") 19.1mm (3/4") Tolerance +/- 0.005"
Sheet Weights	
1/2"	54 lbs
3/4"	81 lbs

(Larger sizes available for laminating applications)
Custom thicknesses & sizes available

Density	750 kg/m ³ +/- 50 kg/m ³
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Physical Properties:

Modulus of Rupture	2176 psi
Modulus of Elasticity	311,832 psi
Internal Bond	79.77 psi
Screw Holding Power	
Perpendicular to Plane	247 lbf
Withdrawal from Edge	157 lbf
Thickness Swell (24-hour immersion)	8%
Water Absorption (24-hour immersion)	20%
Moisture Content	8%



Environmental Benefits

Kirei WheatBoard reduces forest clear-cutting, air pollution and landfill use. The wheat stalks used in the manufacture of Kirei WheatBoard 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 WheatBoard helps reduce this waste and ease deforestation by substituting for wood.

Zero VOC

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

Kirei WheatBoard and LEED

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

Kirei WheatBoard Adhesive

KIREI WheatBoard is manufactured using a no-added-urea formaldehyde MDI adhesive which does not contribute harmful Volatile Organic Compounds (VOCs) to the indoor atmosphere.



Fabrication Guidelines

Kirei WheatBoard 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 WheatBoard 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 WheatBoard 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.

Edge Treatment:

The exposed edges of Kirei WheatBoard are intended to be finished, unless the type of application does not require a more finished appearance than sanding affords. If shaped exposed edges are required, filling, sanding and painting of the edge will provide a satisfactory finish. Kirei WheatBoard can be edge banded with most commercial edge treatments using standard adhesives.