

# BamBüPly™



How to Work with Bamboo Countertops

# BamBüPly™ Bamboo Countertops

## A Durable and Elegant Solution

The following information applies to BamBüPly™ bamboo panels in countertop formats from Bamboo Design & Architecture, all of which can be used for kitchen or bathroom countertops, work surfaces, tabletops, or other similar residential or commercial applications.

### Before you Begin

Before starting your cabinetry project, it is essential to thoroughly inspect your countertop to ensure it has not been damaged during transport and that the delivered goods conform to your order. It is natural and normal to find variation in the color of the bamboo grain, and this does not represent a manufacturing defect. To this end, all panels to be used should be grouped according to their color for the best result.

Bamboo, although a grass, reacts like hardwood and can be affected by environmental changes. The following basic steps for handling, fabrication, and installation are recommended to avoid or minimize certain problems related to wood movement.

### Handling

- Minimizing Handling - This is the best way to reduce damage. Plan storage and processing operations to eliminate excessive handling.
- Horizontal transport- Support panels when transporting horizontally to avoid material stress.

### Storage

1. Store properly - Panels should be stored flat on raised battens of equal thickness. Keep similar lengths of similar products together and maintain proper alignment between them to avoid bending the panels.
2. Temperature - Avoid extremes of heat and cold. Panels should be stored indoors. Ideal temperatures are between 18°C and 24°C (64°F to 75°F).
3. Humidity - Avoid extremes of humidity. Store away from water and off concrete floors. Humidity controls should be installed and maintained at a constant relative humidity between 35% and 65%. The relative humidity of the storage environment should mimic that of the intended installation environment.

Extremely dry climates or environments that cannot maintain a constant relative humidity between 35% and 65% year-round are not appropriate environments. Very damp environments where material will come in contact with extreme moisture or water are also not appropriate for storage.

### Acclimation

For best performance, a temperature of 45 to 75 degrees Fahrenheit (10 to 24 degrees Celsius) and a relative humidity of 35% to 65% should be maintained throughout the year. Any cabinetmaker must acclimate their materials according to their understanding and knowledge of the final environment where the project will be installed. Failure to meet these objectives may create unwanted movements in the panels including cracking, splitting, and warping in some cases.

# Working with BamBüPly™ Bamboo Plywood

## Tools

BamBüPly™ Bamboo plywood can be worked using the same techniques and equipment as the cabinetry industry, including hand and workshop tools as well as CNC machines. If you need to work the material in an unconventional way and are not sure of the result you will obtain, first perform a test to confirm your working method and its compatibility with the product.

## Adhesives and Assembly Methods

BamBüPly™ bamboo panels work well with most fastening methods currently used in the cabinetmaking industry. Note, however, that due to the superior hardness of bamboo, it will be necessary to pre-drill the structure using a drill before screwing. Consequently, nails and hammers should be avoided.

All types of glues are compatible with our bamboo panels.

## Cutting BamBüPly™ Bamboo Plywood Panels

For precise, clean cuts of BamBüPly™ bamboo plywood—whether rip cuts (along the grain) or cross cuts (across the grain)—the recommended method is to use a high-quality table saw equipped with a fine-finish carbide blade, ideally with 60 to 80 teeth. This setup helps minimize splintering and ensures a smooth edge, which is especially important given bamboo's hardness and density.

While a circular saw may be used for straight cuts on site, it's essential to select a finishing blade with at least 60 teeth (preferably up to 80 teeth) for the best results. These blades are readily available at major Canadian hardware and tool suppliers. Always ensure your blade is sharp and suitable for engineered wood products.

Best practices include:

- Use a table saw with a 60–80 tooth carbide finishing blade for both rip and cross cuts.
- For longer cuts with a circular saw, apply masking tape along the cutting line to reduce tear-out and splintering.
- Cut slowly and steadily, supporting the panel to avoid stress and vibration during the cut.
- Always test your cutting method on a sample piece first, especially if using unfamiliar equipment.
- Wear appropriate safety equipment (eye protection, dust mask) due to the density of bamboo and its potential for fine dust.

These methods follow industry standards in cabinetry and furniture construction, ensuring you achieve professional-grade results and protect the integrity of the bamboo panel.

## Sanding

BamBüPly™ bamboo countertop, like conventional wood, can be sanded using the same conventional cabinetmaking materials and equipment, including traditional sandpaper, hand sanders, or industrial sanding equipment.

## Installing a Bamboo Countertop

Most cabinet manufacturers provide corner blocks within the cabinet for attaching the countertop to the cabinet base. Pilot holes should be predrilled through the corner blocks into the underside of the top.

1. Measure and cut the countertop to the required dimensions. Use a fine-toothed blade to minimize splintering during cutting.
2. Pre-drill all necessary holes to avoid splitting the bamboo when screwing.
3. Securely fasten the countertop to the base unit with appropriate length wood screws or ¼" lag bolts. The top should be attached in each corner; additional attachments may be desired at three places across the width (on the front edge, the middle, and at the back edge) at approximately 12" intervals throughout the length of the top.
4. Using a 3/8 inch drill bit, drill a hole in the center of each of the four corner blocks. Rock the drill back and forth in the hole to elongate it in the direction perpendicular to the grain of the countertop. If your countertop is deeper than 36 inches you should drill two 3/8" holes right next to each other and use a jig saw to cut out between them making a slot.
5. Adjust your countertop on the base to even up the reveal all the way around. Drill pilot holes from underneath the counter through your slotted holes into the countertop making sure not to drill through the top. Use a washer on the lag bolt and drive the bolt snug.
6. Where it is not possible to attach the countertop to a cabinet base using corner blocks, attach several angle irons to the underside of the countertop and to the inside of the cabinet casework, as close as possible to the corners. Where the top does not rest on a cabinet, it must be supported by strips of wood. If your top contains multiple pieces, ensure the corner fittings have been tightened after the top has been installed. Be sure to allow for expansion and contraction of the countertop.
7. Some manufacturers of cabinets and appliances take into consideration expansion and contraction by slotting the screw holes. If your pilot holes are drilled at the extreme ends of the slots and the block expands or contracts, you negate the advantage of the slots. Where a manufacturer has not made such allowances, you should use an undersized screw with a washer or make the cabinet screw holes oversized (3/8" larger in diameter than the screw) using a countersunk head screw and a large washer. Do not over tighten the screws as this will restrict the natural movement of the top. Larger panels may expand or contract as much as 1/2". Here again, the rule of thumb is the bigger the block, the greater the expansion.
8. Leave an expansion gap of about 5-6 mm between the countertop and walls or fixed cabinets.

## Joining Two Countertops

If you need to join two countertops:

1. Ensure that the edges to be assembled are perfectly straight and square.
2. Use a water-resistant glue for assembly.
3. Check alignment by doing a dry assembly and checking for gaps.
4. You can use biscuits or dowels to reinforce the joint if necessary.

## Installing a Sink or Prep Bowl

1. Ensure the countertop is properly sealed on all surfaces.
2. Use high-quality finishing products, particularly around the sink.
3. Allow a minimum setback of 5 cm between the front edge of the countertop and the sink location.
4. Cut out the sink hole and sand it until smooth before applying the finish.
5. Apply additional layers of finish around the sink hole for better protection against moisture.
6. Seal the sink to the countertop with a quality silicone caulk

## Oil Finish: The Ultimate Natural Protection

Finishing your bamboo countertop is crucial for its durability and aesthetics. Among the available options, oil finishing stands out for its many advantages:

1. **Effective waterproofing:** The oil penetrates deep into the bamboo fibers, creating a protective barrier against moisture. This property is essential in a kitchen where splashes and spills are frequent.
2. **Stain resistance:** Once properly oiled, the countertop becomes more resistant to common kitchen stains (wine, coffee, fruit juices).
3. **Easy maintenance:** Oiled countertops are easy to clean and maintain. A simple wipe with a damp cloth is usually sufficient for daily cleaning.
4. **Natural look:** The oil enhances the natural beauty of the bamboo grain, giving it a warm and authentic appearance.
5. **Easy repair:** Worn or damaged areas can be easily repaired by local oil application, without requiring a complete renovation of the countertop.
6. **Environmentally friendly and free from harmful chemicals.**

## Oil Finish Step by Step

### Surface Preparation

1. Carefully sand the countertop using 120-grit sandpaper, then move to 180-grit, and finally to 220-grit for a smooth surface.
2. Thoroughly clean the surface to remove all sanding dust.
3. Wipe the countertop with a slightly damp cloth to bring out the wood fibers.
4. Once dry, lightly sand one last time with 220-grit paper.

### Oil Application

1. Choose a high-quality natural oil specifically designed for wood surfaces.
2. It's possible to select a pigmented wood oil if you wish to modify the color of your bamboo countertop.
3. Apply a thin layer of oil using a lint-free cloth or a soft-bristled brush.
4. Let the oil penetrate for 15-20 minutes.
5. Wipe off excess oil with a clean cloth.
6. Allow to dry for 24 hours.

### Additional Layers

1. After drying, lightly sand with very fine grit paper (320 or higher).
2. Apply a second coat of oil following the same process.
3. Repeat this process for a total of 3 to 4 coats, depending on the bamboo's absorption.

### Regular Maintenance

1. Clean daily with a damp cloth and mild soap if necessary.
2. Reapply a thin coat of oil every 6 to 12 months, or as soon as the surface appears dry.
3. For high-use areas, such as around the sink, reapply more frequently.

By following these steps carefully, you will achieve a durable oil finish that will effectively protect your bamboo countertop while preserving its natural and warm appearance. This method also maintains the breathable properties of bamboo, thus contributing to humidity regulation in your kitchen.

## Advanced Manufacturing Techniques

### CNC Machining

Using a Computer Numerical Control (CNC) machine allows for high-precision finishes for bamboo countertops:

- Complex cuts: CNC can create intricate shapes and precise cutouts for sinks and cooktops.
- Custom engravings: Possibility to create unique decorative patterns on the countertop surface.
- Edge profiling: Creation of complex and uniform edge profiles along the entire length of the countertop.

### Edge Profiles

Different edge profiles can be created to customize the appearance of the countertop:

- Simple square: A straight, modern edge, slightly rounded for added safety.
- Half-round: A classic profile with a rounded top edge.
- Ogee: An elegant S-shaped profile for a more traditional look.
- Beveled: An angled edge that adds visual depth.
- Bullnose: A completely rounded edge for a soft and fluid look.

## Maintenance and Care of your BamBüPly™ Bamboo Countertops

### Daily Cleaning

- Wipe countertops with a soft, slightly damp cloth.
- For stubborn stains, use mild soap and lukewarm water. Avoid ammonia-based cleaners.
- Dry immediately after cleaning to prevent water absorption

### Regular Maintenance

- Maintain stable humidity in the room (between 40% and 60%).
- Apply bamboo oil every 6 to 12 months to maintain hydration and protection.
- Clean spills immediately to avoid stains and moisture infiltration.
- Use trivets for hot objects and cutting boards to protect the surface.
- If using the countertop as a cutting board, regularly apply cutting board oil until the bamboo is fully saturated.

### Repair

- Light scratches can be sanded with fine sandpaper, following the bamboo grain.
- For more significant damage, consult a professional.

By following this detailed guide, you will ensure the longevity and beauty of your BamBüPly™ bamboo countertops. Our team of experts remains at your disposal for any additional questions regarding the installation or maintenance of your countertops, thus ensuring your complete satisfaction with our unique and eco-friendly product.

# BamBüPly™ Bamboo Countertops Technical Information

Available Dimensions:	72" x 25" x 1.5", 5-ply - (1829 x 635 x 38mm) 96" x 25" x 1.5", 5-ply - (2440 x 635 x 38mm) 96" x 36" x 1.5", 5-ply - (2440 x 914 x 38mm) 96" x 48" x 1.5", 5-ply - (2440 x 1220 x 38mm)
Construction :	5-ply cross-laminated, full-length strips
Certifications :	CARB II and FSC 100% upon request.
Adhesive:	Food Grade, ULEF (Ultra Low Emitting Formaldehyde) No Added Formaldehyde
Wood Grade :	Architectural – Cabinetry Quality
Finish :	Unfinished
Hardness :	25% Harder than Maple
Fire Resistance:	Fire Resistance Classification: Class C According to ASTM E 84 standard Class B available upon request.
Warranty:	Residential: 5 years from date of purchase Commercial: 1 year from date of purchase
LEED® Credit :	ULEF, (Ultra Low Emitting Formaldehyde) IEQc4.4: Low-Emitting Materials MRc6: Rapidly Renewable Resource MRc7: Certified Wood
Weight :	72" x 25" x 1.5" - 68 lbs (30.84 kg) 96" x 25" x 1.5" - 90 lbs (40.82 kg) 96" x 36" x 1.5" - 130 lbs (58.97 kg) 96" x 48" x 1.5" - 175 lbs (79.38 kg)

For more information, please contact us.

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