

# Bendywood®



Pliable Wood



# WHAT IS BENDYWOOD®



Bendywood is solid hardwood that can be worked like normal wood and then bent in a cold and dry state.



This unique wood is manufactured from blanks of European hardwood beech that have been subjected to a particular thermo-mechanical process:

At first the blanks are steamed to soften the cell walls. Then, still damp, the blanks are compressed along their length for about 20%. Finally, they are dried in this compressed form. The maximum size of our Bendywood blanks is  $100 \times 120 \times 2200 \text{ mm}$  (4" x 4 3/4" x 86 1/2").

As a general rule, an un-carved square section of Bendywood can be bent to a radius of 10 times its thickness (for example, a 25 mm (1") thick board can be bent to a radius of 250 mm (10"). It should be noted, however, that the bending limit ratio on machined sections (carved, dentil and rope) may be greater than the 10 to 1 ratio.

It is recommended that Bendywood be bent and glued, clamped and/or nailed against the surface it is to be applied to. Free-hand bending without this support may result in breakage.

# **BENDYWOOD BENEFITS**

- Bends in a cold and dry state.
- Works like normal wood.
- · No need for special tools or equipment.
- Stain and glue Bendywood like normal wood.
- Re-bend it when needed if errors are made in calculations.
- · Endless shelf life.
- Superior quality hardwood.
- The ideal solution for interior applications.
- · A superior product from an aesthetical point of view since the grain always follows the curve.
- Saves time and money when compared to traditional wood bending techniques and working with laminations.









# **APPLICATIONS**

Bendywood is ideal for use in furniture, kitchen cabinetry and architectural applications. Together with designers and architects we continuously seek new application areas.

WARNING: BENDYWOOD IS NOT SUITED FOR OUTDOOR USE!





**Furniture** 

Accessories

# FREQUENTLY ASKED QUESTIONS

#### How is Bendywood made?

The raw wood is carefully selected free of knots and with a straight grain. It is then steamed (to soften the cell walls) and compressed along its length for about 20%. In this way, the cell walls are compressed (like an accordion), which allows them to straighten out again on the outside of a bend without creating tension and breaking.

#### · Are there any chemicals used to make the wood so flexible?

No, it's a pure thermo-mechanical process. No chemicals are used, Bendywood is 100% ecological.

#### • What timber species can be made into Bendywood?

European Hardwood Beech. Softwoods and tropical hardwoods can't be made into Bendywood as they do not have the appropriate cell structure for this thermo-mechanical process.

#### Can I machine Bendywood like normal wood?

Yes, saw and sand as normal wood.

#### Do I need any special equipment to bend Bendywood?

Thin sections can easily be bent by hand. For thicker sections, clamps, pulleys, weights or a ring rolling bending machine may need to be used.

#### Do I have to wet Bendywood in order to bend it?

No. If you wet Bendywood it will expand. For most tasks Bendywood should be kept dry. However, for thicker sections that are being bent close to their bending limits, it is necessary to increase their moisture content prior to the bending.

#### · What adhesive and finishes should I use?

All woodworking glues and woodworking finishes can be used. However, caution is advised when using water based glues and water based finishes, because a deep saturation with water will damage the Bendywood.

#### Can I glue different layers of Bendywood together into a specific form?

Yes. This allows the use of much thicker laminations than normal and for tighter radii to be achieved.

#### Does Bendywood need to be kept in special conditions?

No. It can be held in stock in the workshop indefinitely. However, it should be kept in a dry place.

# PLIABLE BENDYWOOD® MOULDING





#### 5/8" x 7/16" x 48" long

	Wood species	Item No.
	Beech Bendywood	194.79.340
- 3		

Packing: 10 pcs.





#### 15/32" x 7/32" x 48" long

Wood species	Item No.
Beech Bendywood	194.79.341

Packing: 10 pcs.





3/4" x 11/32" x 48" long

Wood species	Item No.
Beech Bendywood	194.79.342

Packing: 10 pcs.





#### 1 5/16" x 21/32" x 48" long

Wood species	Item No.
Beech Bendywood	194.79.343

Packing: 10 pcs.





#### 3/4" x 1/2" x 48" long

Wood species	Item No.
Beech Bendywood	194.79.346

Packing: 10 pcs.





#### 1" x 1/2" x 48" long

Wood species	Item No.
Beech Bendywood	194.79.347

Packing: 10 pcs.





#### 1 3/4" x 11/32" x 48" long

Wood species	Item No.
Beech Bendywood	194.79.345

Packing: 10 pcs.





#### 11/16" x 5/16" x 48" long

Wood species	Item No.
Beech Bendywood	194.79.344

Packing: 10 pcs.



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