



NOW In Stock!

TORREFIED POPLAR & RED OAK

WHAT IS TORREFIED WOOD?

Torrefaction is a process in which kiln-dried wood is super-heated to approximately 400 degrees in the absence of oxygen, which prevents combustion. This process ultimately changes the molecular structure of the wood, from open cell to closed cell, reducing the moisture content to near 0%. The wood is then conditioned by moisture being re-introduced through steam injection.

This torrefication process results in a rich, dark hue, giving it a color ranging from golden to dark brown while enhancing the natural grain.

WHAT ARE THE BENEFITS OF USING TORREFIED WOOD?

Torrefied wood is suitable for many exterior applications where a genuine hardwood product is preferred, but with added benefits not obtainable with traditional kiln dried products.

Relative to standard kiln-dried woods, torrefied wood exhibits:

- Significantly increased dimensional stability that is less likely to shrink, swell, warp or twist
- Rot/mold resistance
- Insect resistance
- Consistent color throughout each piece - from the face to the center!

WHAT PRODUCTS ARE AVAILABLE?

In Stock!

- 3/4" thick S4S in standard widths from 3-1/2" thru 11-1/4" (8', 10' & 12' lengths)
- 1" x 5-1/2" S4S (8', 10' & 12' lengths)
- 3/4" x 5" (face) x R/L QRK/TVG

Pricing on all of the above items can be found in our Stock Moulding Price Book, available through the Dealer Portal on the KW web site!

Also Available!

- Special order mouldings & doors

Contact your Koetter Sales Representative for pricing and availability!



FAQ's

TORREFIED POPLAR & RED OAK

WHAT IS TORREFIED WOOD?

Torrefied wood (also known as thermally modified) is achieved by heating the wood at a temperature of approximately 400 degrees farenheit in a torrefication kiln, in the absence of oxygen. The length of this process varies, depending on species and thickness. In the final step, the temperature is gradually lowered by controlled steam injection, which re-introduces moisture back onto the wood to approximately 3% - 5% to help restore it's natural flexibiity. This entire process changes the cellular structure by burning away the sugars, eliminating the target of decay and insects.

ARE THERE ANY CHEMICALS USED IN THE TORREFICATION PROCESS?

No; thermal modification uses nothing more than heat and steam. There are no harmful toxins or chemicals used in this process.

WHAT SPECIES ARE AVAILABLE FROM KOETTER WOODWORKING?

This product offering is currently limited to Poplar & Red Oak. No other species are available at this time.

ARE THERE THICKNESS AND LENGTH LIMITATIONS RELATING TO MOULDINGS?

At this time, special order torrefied mouldings are limited to a finished thickness not exceeding 3/4". Poplar is available in lengths up to 16' and Red Oak is available up to 12'.

DO YOU NEED TO PRE-DRILL WHEN USING FASTENERS?

It depends on the fastener. When you think of torrefied wood, think of Hickory or Hard Maple. This product is more brittle, so pre-drilling is recommended with larger fasteners, particularly when used near the end of a board. Installations using small nails should not be an issue.

IS TORREFIED POPLAR & RED OAK GOOD FOR EXTERIOR USE?

Yes! The key advantages of torrefied wood is it's resistance to moisture, rot, mold and insects. It is a very stable product that is ideal for exterior applications.

Over time, the rich color of torrefied wood will weather (turn gray or silver), especially if exposed to direct sunlight. In order to minimize weathering, you should use a high quality pigmented stain and topcoat with UV protectant. Oil based finishes are recommended, as the wood does not absorb water easily. Please consult with your finisher for recommendations.

As with any wood product, routine maintenance is required to maintain the desired look.

CAN I PAINT OR STAIN USING BLACK OR A DARK COLOR?

Dark colors should only be used if the material is completely protected from direct sunlight. Dark colors increase the radiant heat, which can result in glue failure, particularly with exterior doors. This is not related to the torrefied wood itself.



FAQ's

TORREFIED POPLAR & RED OAK

DO I HAVE TO APPLY A FINISH IF THE MATERIAL ISN'T EXPOSED TO SUN OR RAIN?

No, however the wood will turn gray or silver over time. Regardless of exposure, it is always best to apply a pigmented stain and topcoat with UV protectant to help maintain the rich color. Consult with your finisher for recommendations.

ARE TORREFIED POPLAR & RED OAK DOORS WARRANTED FOR EXTERIOR USE?

Yes, exterior doors manufactured from torrefied Poplar or Red Oak are subject to the terms of Koetter Woodworking's standard exterior warranty.

ARE TORREFIED DOORS AVAILABLE WITH A FIRE RATING?

No, we are not able to offer fire rated doors that are manufactured from torrefied wood.

HOW DOES TORREFIED WOOD MACHINE?

Both Poplar & Red Oak mill similarly to their non-torrefied counterparts, but does have a tendency to chip due to it's relative low moisture content. You may need to mill at a slower feed-rate, but standard tooling and processes are the same. It does not dull tooling any more than the specie would without being torrefied.

DOES TORREFIED WOOD REQUIRE ANY SPECIAL TYPE OF GLUE OR GLUING PROCESS?

For interior applications, a PVA (white or yellow glue) is recommended and for exterior applications, we suggest a polyurethane glue.

The cellular structure of torrefied wood requires that you allow a minimum of double the cure time so the glue can penetrate the wood.

WHY IS THE DUST SO FINE WHEN MACHINING OR SANDING TORREFIED WOOD?

The reduced moisture content combined with the thermally modified structure of the wood results in much finer wood dust than normal. It's powder-like consistency will have more of a tendency to stick to your hands and arms.

HOW DO WE QUOTE/ORDER?

Pricing and lead time on available torrefied products may be obtained quickly and easily through Koetter Connect! If you are not a Koetter Connect user, please contact our inside sales team and they will be happy to assist you with pricing and availability.