Wood Product Specifications

Great Lakes Wood Co.

We take pride in sourcing the highest quality materials and apply finishing techniques that compliment and enhance the beauty and performance of the wood. All of our products are grown in the USA and sourced as sustainably as is possible.

We are able to mill any of these species to the profiles and dimensions you need for your project. All of our products come pre-finished on all four sides and are ready for installation.

Thermal Modification

Thermally modified wood is a unique timber product created through a process known as thermal modification. It involves subjecting the wood to high temperatures in a controlled environment, altering its physical and chemical properties. This treatment enhances the wood's durability, stability, and resistance to decay, making it ideal for outdoor applications. It can also greatly enhance the visual appeal of the wood. The process removes moisture and volatile organic compounds, resulting in a more dimensionally stable and eco-friendly material. Thermally modified wood is increasingly popular in construction and landscaping due to its improved performance and attractive appearance.

Thermally modified wood has the following benefits:

1. **Increased durability**: Thermally modified wood is more resistant to rot, decay, and insect damage, prolonging its lifespan compared to untreated wood.

2. **Enhanced dimensional stability**: The thermal modification process reduces the wood's moisture content, minimizing its susceptibility to shrinking, warping, or swelling due to changes in humidity.
3. **Improved resistance to moisture**: Thermally modified wood exhibits reduced water absorption, making it less prone to moisture-related issues such as mold and fungal growth.
4. **Greater resistance to termites and other pests**: The modified wood's altered chemical composition makes it less attractive to wood-boring insects and pests.
5. **Enhanced weather resistance**: Thermally modified wood performs exceptionally well in outdoor environments, with increased resistance to UV radiation, weathering, and discoloration.
6. **Sustainable and eco-friendly**: The thermal modification process uses heat and steam, eliminating the need for chemical treatments or preservatives, resulting in an environmentally friendly product.
7. **Better dimensional accuracy**: The reduced moisture content in thermally modified wood ensures that it maintains its shape and size, resulting in more precise and stable installations.
8. **Improved hardness**: The thermal modification process increases the wood's hardness, making it more resistant to scratches, dents, and wear over time.
9. **Improved thermal insulation**: The modified wood's structure provides enhanced thermal insulation properties, making it an excellent choice for applications where energy efficiency is crucial.
10. **Attractive appearance**: Thermally modified wood develops a warm, rich color and a unique patina over time, adding aesthetic value to any project or design.

Our Products

Thermally Modified Southern Yellow Pine

- Grown in the USA
- Naturally durable for at least 25 years due to modification process
- All Thermal Pine goes through our proprietary burn and brush proces
- Comes ready to install
- Little maintenance required
- Oiled on all four sides
- Great for siding, soffits, ceilings and interior walls

Thermally Modified Ash

- Beautiful appearance
- Grown in the USA
- Naturally durable for at least 25 years due to modification process
- Comes ready to install
- Grays naturally over time
- Oiled on all four sides
- Great for decking, siding, soffits, ceilings and interior walls

Western Red Cedar

- Naturally weather resistant - no thermal modification needed
- Grown in the USA
- Comes ready to install
- Oiled on all four sides
- Great for decking, siding, soffits, ceilings and interior walls

Maintenance

All of our products are either naturally weather resistant or weather resistant as a result of thermal modification. As a result, they hold up extremely well to all types of weather in a variety of climates. Being a natural product, some change in color can occur and so a scheduled reapplication of oil is recommended. Depending on the amount of direct sunlight the products are exposed to, we recommend a reapplication every 4-6 years. This is a simple process of wiping on a penetrating oil and requires no scraping, sanding or other prep work. Our darker finishes provide a high degree of UV protection and should last longer before maintenance than lighter finishes.