INSTALLATION INSTRUCTIONS FOR OUTDOOR APPLICATION OF Radiata Pine TMD

Getting Started – Thermally Modified Wood is Still Wood

Once wood has been put through the unique process of Thermal Modification it is improved at the molecular level, taking on an abundance of new benefits; increased durability, stability, and even a reduction in the weight of the wood. Besides the physical improvements, the Thermal Modification process also reduces the woods ability to absorb water, resulting in a product that does not shrink or swell to the same degree as unmodified wood, and is less susceptible to rot.

Despite all of these great improvements created by Thermal Modification, it is very important to remember that while radiata pine TMD has been modified, it is still wood. All though radiata pine TMD looks like a high-priced hardwood, it is a softwood like redwood and cedar, and therefore can dent, scratch and check. For this reason we ask that you avoid over-expectations in regards to radiata pine TMD:

- The Thermal Modification process increases the woods durability, but to keep radiata pine TMD in optimal condition we recommended that it is given the same care and maintenance as other unmodified wood products.
- Shrinking and swelling has been decreased in radiata pine TMD, but it isn't concrete – wood is wood, and it will still move slightly.
- The Thermal Modification process turns the wood a rich chocolate brown color that is normally only seen in exotic hardwoods, but if left untreated under direct sunlight radiata pine TMD will eventually weather to a natural silver patina. In order to keep radiata pine TMD at its original chocolate brown color, it is necessary to coat it with UV protection.
- Radiata pine TMD is not intended to be used for structural applications, such as joists, beams, support posts, columns or other load-bearing applications. Any deck built with radiata pine TMD must be supported by use of code-compliant material.
- radiata pine TMD is not intended to have direct ground contact. We recommend all Thermally Modified products be installed at least 12-18" above ground.

Cutting, Drilling and Installation

radiata pine TMD works well with standard woodworking tools, but it is important that special attention is given to saw and tool coarseness/fineness to better improve the end result. We recommend that all blades and routers have carbide tips. Saw speed will have an effect on the cut quality; generally, the higher the saw power, the better the cut quality. **Use dust masks and protective eye wear for safety as recommended by California Prop 65.**

It is recommended that joists be installed 16” on center, or local municipality code regulations. Use standard residential deck codes to determine on-center space for decks and stair treads. Deck boards shall extend across a minimum of three joist bays and terminating board ends shall lie on joist centers. All deck boards should be placed with a minimum 1/8” gap between them, and in more moist environments a 3/16” gap is recommended. All installations should follow all local municipality code regulations.

All radiata pine TMD is **intended to be installed “Ribbed” face up** for increased grip, comfort, and decreased checking and splitting. For this reason it has been graded on the “Ribbed” face, and defects could occur on the ungraded smooth back.

Fastening

When fastening radiata pine TMD we recommend face-fastening with stainless steel screws, but some hidden fastening systems provide excellent holding as well. Stainless steel fasteners must be used, or mineral stain can occur. All fasteners should be applied a minimum of 5/8” from board edge and a minimum of 1” from board ends. **Nailing is not recommended** when installing radiata pine TMD due to the increased brittleness of all Thermally Modified wood.

All deck boards should be placed with a minimum 1/8” gap between them, and in more moist environments a 3/16” gap is recommended. Even though radiata pine will not shrink or swell to the same degree as normal wood, the correct spacing between boards is still very important because it allows proper airflow to reach beneath your deck. A larger gap creates better airflow.

Coating

Coatings are not necessary with radiata pine TMD to protect the wood from decay. However, just like any wood product, if left untreated radiata pine TMD will naturally weather. To help protect radiata pine TMD from the natural weathering process of exposure **a high-quality sealant with UV protection should be applied**. This will help protect against unwanted check while keeping radiata pine TMD its original color.

For optimal results against weathering and mold it is advisable to apply a coating to all four sides before the installation of radiata pine TMD. Applying a second coating and future applications will help provide even further protection and will produce the best results.

Maintenance

Because radiata pine TMD is real wood it is recommended that you **DO NOT use power-washing or harsh chemicals** in the cleaning process of your deck, as they can damage the appearance of any wood product. A soft brushing with soap and water as well as scheduled maintenance is recommended for optimal product performance and beauty. To enhance the products performance against weather and mold please follow the coating manufacturer’s instructions.