NOVA
BUILDING PRODUCTS

ExoShield Best Practices
For Finishing High-Density Hardwoods

Nova USA Wood Products
3821 24th Ave. Forest Grove, OR. 97116
(503) 419-6407

@NovaUSAWood
www.novausawood.com

BEST PRACTICES FOR FINISHING HIGH-DENSITY HARDWOODS

When it comes to finishing high-density hardwoods such as Ipe or Torem, application can be a highly arduous task. This is not only because these species have a relatively high density but also because they have smaller vessels than those found in other commercially available hardwoods. While the task of finish application can be difficult, there are solutions for increasing the penetration performance of finishes like Nova's ExoShieldTM. Enter water popping, a technique commonly used among hardwood flooring installers that promotes the effective and uniform penetration of a given finish.

*Note that the water popping method is not intended for film-forming finishes that create a coating or "film" on the wood surface.

WHAT IS WATER POPPING?

Water popping, also known as grain-popping, involves the application of clean water to an unfinished wooden substrate to open or "pop" high-density wood cells. Wood is inherently hygroscopic, meaning it will readily absorb liquid water. When this occurs, water forces the wood cells to expand. As the water evaporates, the wood's cellular structure will remain open allowing them to receive finishes more readily.Tung Oil is natural and sustainable.

Torem Board, non-water popped (left), water popped (right)

FINISH PENETRATION

When applying a penetrating oil finish, like Nova's ExoShieldTM, the product will attempt to absorb into the wood on a cellular level. If the vessels of a given species are tightly closed the finish will not readily penetrate as desired. This also translates to penetrating oil finishes containing pigments which mitigate UV rays from graying out the wooden surface. Observe the penetration rate of non-water popped VS water popped Torem in the image below – hard to believe it's the same board!

Nova USA Wood Products
3821 24th Ave.
Forest Grove, OR. 97116
(503) 419-6407

www.novausawood.com

@NOVAUSAWOOD

EXO Shield

NOVA STAINS

GUIDELINES FOR WATER POPPING

SANDING

Begin by sanding your deck with 80-100 grit sandpaper with a random orbit or belt sander. A random orbit sander will ultimately be more labor intensive but will yield a more uniform appearance. If you opt for the random orbit approach, we recommend employing a mesh-style sandpaper such as Mirka AbranetTM or Diablo SandNetTM. Mesh-style sandpaper will mitigate unwanted swirl marks that can be a huge eyesore. After sanding is complete be sure to wipe, blow or vacuum off the surface of the wood to remove excess dust that can become suspended in the finish.

DAMPING

Now comes the easy part. First, fill a bucket with clean water. Submerge a clean towel/rag in the water and evenly wet the area that the finish will be applied to. Proceed to treat the entire application area in this manner. Alternatively, use a pump-style sprayer filled with clean water. Ensure that the tank is completely pressurized then spray an even mist over the intended surface. Following the misting process, go over the applied area with a soft brushing tool to ensure the deck is saturated.

Whichever process you choose to follow, ensure that you apply water to the entirety of the surface without leaving any pools on or in between boards.

After you damp the surface allow the water to dry completely. The drying process can take anywhere from 2-4 hours given that ambient conditions are optimal. These conditions will be influenced by high relative humidity and cool temperatures which may increase the time required to dry. When the drying process is complete the finish can be applied as instructed.

NOVA'S TIPS FOR SUCCESS

QUALITY WATER

Employ purified water to prevent unwanted interactions. Tap water can often have trace amounts of minerals such as calcium that can precipitate on the surface of the wood.

TEST A SPOT

ALWAYS test a spot prior to water popping the entirety of your deck. This will allow you to ensure your process is successful.

DAMP WITHIN 24-48 HOURS

After sanding the damping procedure should be performed withing 24-48 hours. Waiting longer than this may cause issues with penetration performance as the surface may become inactive. Inactivated wood surfaces occur when the wood will not allow wetting to occur.

Nova USA Wood Products
3821 24th Ave.
Forest Grove, OR. 97116
(503) 419-6407

www.novausawood.com

@NOVAUSAWOOD