**Protecting Wood Surfaces: Tips for Decks, Floors, and Stairs**

How do you ensure the longevity of wood surfaces like decks, floors, and stairs? With so many wood types, surface conditions, and coating options available, it’s understandable that many contractors aren’t sure where to start. MPI offers in-depth training on wood applications in the [Architectural Course](https://mpi.us10.list-manage.com/track/click?u=0269c709781d5229de7ebc25d&id=cb792b2a5f&e=47a92f320f), and here are some essential tips to consider.

**Types of Wood**   
Whether it’s pressure-treated pine or mahogany flooring, it’s important to know the type of wood substrate before choosing a coating system.

* Exterior Wood Types:
  + Pressure-treated southern yellow pine is commonly used for decks in the U.S.
  + Softwoods such as cedar and pressure-treated fir or spruce are also common.
  + Exotic woods such as ipe and mahogany are sometimes used for their durability.
  + Composite and recycled materials can be finished to resemble wood.
* Interior Wood Types:
  + Oak is the most widely used interior wood.
  + Other hardwoods include walnut, maple, rubberwood, beech, and mahogany.
  + Softwoods like pine and fir are often found in older buildings. They are also used in gymnasiums.

There are a few wood-specific challenges to be aware of:

* Ipe (Ironwood) and mahogany are extremely hard and dense. Hardwood can be difficult to coat.
* Composite decking needs adhesion testing before coating.
* Pressure-treated wood requires weathering for as long as a year to ensure proper adhesion.

**Surface Preparation**  
Once you know the type of wood, surface preparation is critical.

* For hardwoods:
  + Sand with 60-80 grit sandpaper to open the wood cells for better coating penetration.
  + Wipe down oily woods like ipe with acetone before coating.
* For softwoods:
  + Clean and abrade surfaces before applying coatings.
  + Consider power washing with low pressure (600-800 psi) to remove debris.
* For pressure-treated decks:
  + Follow surface preparation instructions provided by the coating system manufacturer.
  + Ensure the grain end and any untreated sides are sealed or primed. This reduces the potential for water absorption and coating failure.

**Coating Systems**  
With the surfaces prepped, it is time to apply a coating system. The choice of coating will depend on:

* Severity of use (traffic load)
* Environment and surrounding contamination
* Abrasion levels from machinery, foot traffic, etc.
* Appearance expectations
* Safety/anti-slip characteristics

Considerations for exterior decks and floors:

* Alkyds and oil-based products will penetrate hardwood more easily than acrylic or waterborne coatings.
* Waterborne and hybrid products are a better choice when low VOCs, rapid dry time, and ease of water cleanup are needed.
* Latex systems applied over a primer are suitable for exterior porches, covered residential surfaces, and low-traffic commercial applications.
* Deck stains to not offer sealing or UV protection, so they require a coat of preservative and frequent recoating.

When working on interior flooring and stairs:

* A semi-transparent stain with a polyurethane varnish topcoat enhances the wood grain and offers excellent abrasion resistance.
* Alkyd floor enamels are ideal for moderate-traffic areas. Enamels offer durability and scuff resistance.
* Latex systems are suitable for light traffic areas but avoid applications where water or standing liquids may collect.
* Epoxy coatings are preferred for high-traffic, high-abrasion environments like gyms.

**Proactively Prevent Failure**  
To prevent coating failures on wood, choose the right system for the type of wood, and always apply finishing material in thin, uniform coats. Allow the full manufacturer’s recommended dry time between coats, and you should end up with long-lasting wood protection.

To learn more, or become a certified specialist, sign up for an [MPI Training Program](https://mpi.us10.list-manage.com/track/click?u=0269c709781d5229de7ebc25d&id=0a2e27e0bc&e=47a92f320f).

**Professional Tip**

*For safety, use nonslip additives on stairway treads and in glossy finishes that are applied in wet or damp areas. Nonslip additives are available for most painting systems, but if one isn’t available, you can substitute silica sand. Spread sand over the first wet coat, allow to dry, then apply additional coats.*