

# PRODUCT INFORMATION

## *Lumbrella® Plus Water Repellent*

WolmanizedWood.com

**Wolmanized®**  
OUTDOOR® WOOD

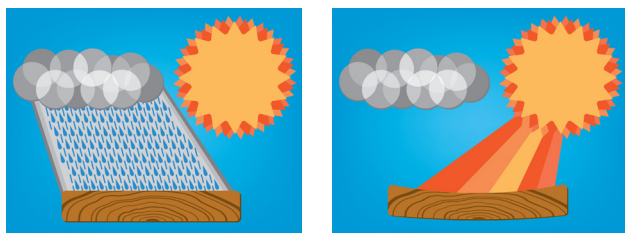
For all of the wonderful characteristics of wood as a building material — natural appearance, ease of construction, economy, and environmental benefits to name a few — some wood will warp.

Adding Lumbrella® Plus water repellent during the treatment process will lessen warping and twisting while protecting the wood against showing the effects of moisture.

It can be several months from the time wood is pressure-treated until a project is built and coated with a sealant. Typical treated wood has no defense against moisture during that period, and it is usually moisture that causes warping and cracking.

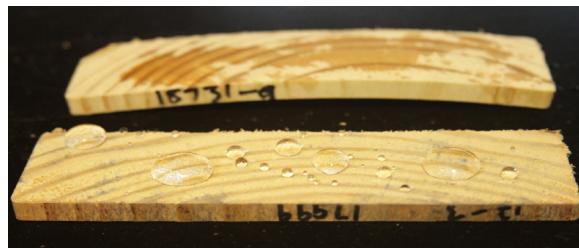
When wood gets wet, it swells; as it dries, wood shrinks. This causes stresses within the wood. Since Lumbrella® Plus additive is factory-applied as part of the pressure-treatment process, it penetrates deep into the wood. Lumbrella® Plus minimizes this tendency of wood to warp and crack by slowing the rate at which lumber absorbs and releases moisture.

Wood looks better, resulting in more attractive projects with easier construction, and fewer exchanges.



Moisture causes wood to swell. Then, as the wood dries, it shrinks. This ongoing cycle causes stresses in the wood, which lead to warping and cracking.

## Benefits



This simple wafer test shows the effects of water on two sample pieces of wood. The front wafer, treated with Wolman® E Copper Azole with Lumbrella® Plus additive protects the wood by keeping water from penetrating, thus warping it. Wood without Lumbrella® Plus additive (back wafer) absorbs water, causing it to warp.

- Protects wood against warping, cracking and twisting.
- No topical water repellent necessary for two seasons.
- Ideal for decks, fences, walkways, and other backyard projects.
- Can be painted or stained. For best results, oil-based or penetrating latex stains are recommended. Use the same guidelines that coatings manufacturers recommend for painting or staining regular treated wood. For a water-based product, wait at least six months before applying.



American Wood Protection Standard E13-09 was established in 1992 to test the water repellency of wood. The Swellometer above is used for the testing.

# Testing

Samples are evaluated according to AWP A E13, Standard Method of Testing to Determine Water Repellency of Treated Lumber or Pressure-Applied Water Repellents. Wafers are cut from lumber that has been treated with water repellent and are submerged in water for five minutes. The percent swell in the

tangential direction is determined. Samples cannot swell more than 1% in the five minute time frame in order to be classified as “water repellent” according to American Wood Protection Standard E13-09.

# Characteristics

Product	Compatibility	Results
Lumbrella® Plus	micronized CA-C & Wolman® AG	testing has shown an 87% reduction in swelling versus treated wood with no water repellent
Lumbrella® Plus V2	micronized CA-C with BARamine®	
Stabilizr™ amine	dissolved CA-C	