



## Clearing Confusion on Clears

Every week it seems you see, hear or read about another new clear product on the market. If you're confused about clears, wood preservatives, water-proofers or sealers that claim they will protect, preserve, seal and last longer, work better and go further than the competition. Let's try to clear the air of confusion about clears with some straight talk.

When choosing a finish for wood, there are two elements to consider: aesthetics and protection. Aesthetically, there is a growing trend among homeowners to try and maintain the "natural" look of the wood's original color. However, the best protection from the sun's U.V. rays is pigment and a delicate balance of resins, solids, chemical preservatives and/or waxes to protect the wood from moisture. Thus the problem: balancing the aesthetic desires of the homeowner with the protective requirements of the wood surface.

Given this delicate balancing act, stain manufacturers have produced a number of clear products to meet the aesthetic desires of the homeowner, as well as the protective requirements of the wood. Clear products can be classified into three distinctive categories: Water Proofer/Sealers, Wood Preservatives and U.V.-Resistant Clears (blocking or absorbing). Government regulations on raw materials used in the products, along with changing technology, has caused an abundance of new clear products on the market. High solids, water based, oil emulsion and traditional solvent based are just a few examples of the different types of clears sold within each of the three distinctive categories of clears. So, when choosing a clear product, it is important to match the aesthetic desires with the protective requirements of the wood and, at the same time, understand the limitations of the product.

### Water-Proofing Sealers

Clear products that fall into this category are clear penetrating finishes. They typically contain a large amount of wax, usually paraffin, or some other proprietary wax that reduces the amount of water absorbed into the wood, thus preventing swelling, shrinking, warping and splitting. Because moisture is repelled, fungus, such as mildew, does not have the moisture needed to grow. These products offer spectacular beading of water upon initial application. However, they offer the wood no protection from the sun's ultraviolet rays, resulting in the wood turning a yellow-gray, and then black. In addition, water-proofing sealers rarely contain more than just a small amount of resin. Thus the wax in the product quickly breaks down, and the water-beading properties vanish. The life expectancy of these products range from 6 months - 1 year on horizontal surfaces (decks), to 1-2 years on vertical surfaces. Examples of such products would include Thompson's Water Seal, Cuprinol Clear Wood Seal and Cabot's Clear Decking Stain. Cabot uses a complex mixture of micronized wax, dispersed in hydrocarbons, in our Clear Decking Stain. This micronized, water-repellent mixture is more easily dispersed within the resins of the product, providing water repellency wherever the product has penetrated the wood, not just the top surface.

### Wood-Preserving Clears

These clears are very similar in appearance to water sealers/proofer except that they contain less wax, no resin, and an added EPA registered fungicide. Usually the amount of EPA approved fungicide is so slight that they add no significant benefit to the homeowner. The addition of these chemicals to the product, and the subsequent EPA registration, allows manufacturers to use the words "Wood Preserving" when describing the product. Without the

*(Continued on back)*

## Clear Finishes *(Continued from front)*

EPA approved fungicide and registration, the “Wood Preserving” terminology is not allowed on the product’s label or literature. However, they offer the wood no protection from the sun’s ultraviolet rays, resulting in the wood turning a yellow-gray, and then black. In addition, wood-preserving clears do not contain any resins. Thus, the small amount of wax in the product quickly breaks down, and the water-beading properties vanish. The life expectancy of these products can range from 6 months -

CATEGORY	RESIN	WAX	U.V. RESISTANT	LIFE EXPECTANCY	PRODUCT EXAMPLES
WATER PROOFING SEALERS	VERY LITTLE	LARGE AMOUNT	NO	6 MONTHS - 1 YEAR (ON DECKS) 1-2 YEARS (ON SIDING)	<ul style="list-style-type: none"> <li>• THOMPSON'S WATER SEAL</li> <li>• CUPRINOL CLEAR WOOD SEAL</li> <li>• CABOT'S PROTECTANT CLEAR 114001</li> </ul>
WOOD PRESERVING CLEARS	NO	SMALL AMOUNT	NO	6 MONTHS - 1 YEAR	<ul style="list-style-type: none"> <li>• BENJAMIN MOORE 088</li> <li>• OLYMPIC CLEAR WOOD PRESERVATIVE</li> <li>• CUPRINOL #20</li> </ul>
U.V. RESISTANT CLEARS	YES	SMALL AMOUNT	YES	1-2 YEARS (ON DECKS) 2-4 YEARS (ON SIDING)	<ul style="list-style-type: none"> <li>• FLOOD'S CWF-U.V.</li> <li>• OKONASTURA CHOICE</li> <li>• CABOT CLEAR SOLUTION</li> </ul>

1 year. Wood Preserving Clears are becoming scarce in today’s marketplace for several reasons: The government has placed restrictions on some of the most commonly used fungicides used in this category of clears, and at the same time the reduction of these fungicides has left these clear products less effective. Also, the cost of the fungicides has caused manufacturers to take a closer look at the formulations. More recently, the widespread availability and use of pressure-treated wood has also had a negative effect on the popularity of Wood Preserving Clears. Wood Preservatives still on the market include Benjamin Moore 088 and Olympic Clear Wood Preservative. Increased regulations on the use of fungicides will contribute to the decline of products in this category.

### U.V. Resistant Clears

U.V.-Resistant Clears are not truly clear, but rather products that impart a slight amber color or tone. To achieve this slight amber cast and afford the wood some protection from the sun’s U.V. rays, manufacturers will use everything from heavy dark neutral oils to transoxide pigments. Transoxide pigments are translucent and highlight the grain and texture of the wood. Because there is pigment in the product, the wood is receiving protection from the sun’s ultraviolet rays. Transoxide pigments are also versatile, finding success not only in traditional product formulas, but also in VOC-compliant formulas. The life expectancy of U.V.-Resistant Clears can range from 1-2 years on horizontal surfaces (decks), to 2-4 years on vertical surfaces. Cabot’s high-penetrating Clear Solution® and Australian Timber Oil® provides a durable finish for both decks and siding. By penetrating deeply into the wood, Cabot Clear Solution and Australian Timber Oil provide increased protection to not only the wood surface, but also the underlying wood fibers.

Matching the aesthetic desires of the homeowner with the protective requirements of the wood is a delicate balancing act. By having a clear understanding of the customer’s needs and by careful explanation of the benefits and limitations of the various clears, customer expectations will be satisfied.



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