

Why Log Homes Need a Pigmented Finish

Let us assume that you have a newly constructed log home, or a home that has had an old finish recently removed. The bare wood is yellow and bright, and the color is exactly what you always envisioned for your log home. What would be wrong with applying one or two coats of a clear sealer to hold the color of the wood and protect your logs from rain, snow and ultraviolet (UV) light damage?

Here are some things to consider. The most damaging environmental factors to wood are water and sunlight. Water penetration creates conditions conducive to decay while the UV component of sunlight destroys the integrity of the wood's cellular structure (photo-oxidation of the lignin). Although clear coats alone can temporarily provide a barrier against water penetration, they have difficulty dealing with UV light for more than a few months. Clear coats rely on two mechanisms to protect the underlying wood from UV light, reflection, and absorption. If the clear coat is smooth and shiny, it will reflect much of the UV light, but as it gets dirty or dull, less light is reflected allowing more UV light to reach the wood. Chemical UV inhibitors may be included in the formulation; however, they are sacrificial. Clear coats applied to exterior bare wood provide only temporary protection against UV damage. They also degrade fairly rapidly so that their ability to repel water may only last one or two years. Within a few months the home will start showing signs of this degradation. Areas that are protected from sunlight will be significantly lighter than those areas exposed to direct sunlight.



Effect of 18 months of sun exposure on bare northern white cedar.

So how does a pigmented finish avoid these same issues? The colorants or pigments contained in a colored finish absorb UV light and remain active while the pigments remain on the surface. It is in fact the pigments that do much of the work protecting the underlying wood from the effects of UV exposure. The purpose of our Advance™ Clear Topcoat is to protect the color coats similar to the clear coat on an automobile. The color coats protect the underlying wood and the Advance™ Clear Topcoat protects the color coats from the effects of dirt, wind, sunlight, rain and snow. If you want a bare wood look, you can choose a color like Butternut or Wheat. They have the appearance of bare wood but offer the UV protection inherent in a high quality pigmented stain. Note: These colors still need to be top coated with Advance™.

While we occasionally receive calls from potential customers that only want to purchase our Advance™ exterior clear coat to apply to bare wood. We will try to convince the customer not to just apply a clear coat because they will likely be disappointed with the results. We pride ourselves in supplying the very best finish systems. To knowingly mislead a log home owner to purchase a product that will not live up to our high-performance standards is not the way Perma-ChinkSystems, Inc. does business.