



## Superior Performance Begins with Surface Preparation

The beauty and durability of any stain job depend on both the quality of the stain and proper surface preparation. Just as you wouldn't wax a car without washing it first, you shouldn't stain a house without cleaning it first. Customers often spend hours choosing just the right product and color, yet give little or no thought to surface preparation. Professionals know, however, that proper preparation ensures a long-lasting stain application and eliminates many problems before they start. Here are the steps to follow to properly prepare a wood surface for coating:

### Close Visual Examination

Look for problem areas and obvious construction defects. The surface should be in a good, sound condition, i.e. the wood has not begun to erode, rot or decay. Then check for surface contaminants such as mildew stains, cedar bleed, dirt and chalkiness. You must remove such contaminants before applying the stain, but remember – there is no single cure for every surface problem.

### Testing the Surface

First, press a piece of tape firmly against the surface to be stained, then tear it away and examine the back. The presence of old stain or loose wood fibers on the tape could indicate a potential moisture problem. Excessive moisture entering the wood accounts for many problems, such as peeling, premature wood erosion, rot or decay. The surface must be dry at the time of staining. The industry considers a dry surface with a moisture reading of 15% or less. Also, the surface must be situated so as not to absorb or collect excessive moisture after staining. A solid-bodied stain or paint will not peel unless moisture forces it off the surface. Other surface problems, such as premature erosion of the wood, may result from neglect or severe weather exposure. Before staining, replace rotting or decayed wood. Remove loose stain and eroded wood fibers by sanding, scraping or power washing the problem surfaces.

### Dealing with Surface Contaminants

Once the surface is in good condition, reinspect for dirt, mildew stains, cedar bleed, chalkiness and other foreign substances. It is important to identify each type of contaminant, as each requires its own treatment.

Mildew stains, dirt, soot and other pollutants often appear as black dots or specks on the surface. To determine the correct treatment, apply a small amount of fresh household bleach to these black areas. If the dark discoloration lightens quickly, mildew stains are present. Dirt, soot and other pollutants will not change color but may simply move within the bleach solution.

### Eliminating Mildew Stains and Dirt

For the most effective removal of mildew stains, dirt, soot and other pollutants, use a cleaning solution that contains sodium hypochlorite (active ingredient in household bleach), sodium metasilicate (non-ammoniated detergent/wetting agent), and calcium hypochlorite (strong oxidizing agent). All three ingredients are important because each has a specific function in the proper cleaning of the substrate.

*(Continued on back)*



## Surface Preparation *(Continued from front)*

### Chalkiness

Chalkiness may be detected by rubbing your hand or a clean cloth over the wood surface. If a previous stain application breaks down and begins to chalk, surface chalkiness must be removed with a detergent (sodium metasilicate) wash prior to reapplication.

### Cedar Bleed

Cedar bleed (tannic acid) is a reddish brown discoloration that may make old stain applications appear blotchy or uneven. Test for it by applying a ferrous sulfate solution to the discolored surface. The solution will turn from its natural color to blue-black. Ferrous sulfate is not commonly available, making the test for cedar bleed difficult for the homeowner. However, call Cabot's Technical Services & Support for assistance. An oxalic acid based solution will effectively remove the discoloration and is readily available. It also removes nail and metal rust stains.

Please emphasize proper surface preparation to your customers – it is the vital first step in a quality stain job. It will not only enhance customer satisfaction, but increase your profits as well.

Contaminant	Solution Applied			
	Chlorine Bleach	Detergent Wash	Cabot® Problem-Solver® Cleaner #8002	Cabot Problem-Solver Brightener #8003
Dirt, Soot or Ash	No Effect	Partial Removal	<b>Complete Removal</b>	No Effect
Cedar Bleed ( <i>tannic acid</i> )	Partial Removal	Partial Removal	Partial removal	<b>Complete Removal</b>
Iron ( <i>nail &amp; rust stains</i> )	Negative Effect	Partial Removal	Partial removal	<b>Complete Removal</b>
Mildew Stains	Partial Removal	No Effect	<b>Complete Removal</b>	No Effect
Chalkiness	No Effect	Partial Removal	<b>Complete Removal</b>	No Effect



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