




Winter Foes...Springtime Woes



During the winter months, many sections of the United States and Canada undergo serious climate and atmospheric disturbances. People living along the Atlantic and Pacific coasts deal with severe snow and rain, which is often accompanied by high winds, sub-zero temperatures and coastal flooding. These seasonal conditions, or *Winter Foes*, can cause exterior coating problems. Most of us tend to stay indoors and not think about what has or what may be occurring around the outside of our homes. As spring approaches, it is time to get outdoors and examine our properties to survey the damage that the winter has inflicted. These problems become our *Springtime Woes*. Some of the most widespread problems and their solutions are addressed below.

The Problems

Why would your paint or solid color stain peel? The usual reason for peeling is excessive moisture or free-running water coursing through the wood. Excessive moisture causes wood to swell, and with this swelling, the adhesion of the paint or solid color stain is compromised. (Blistering and peeling most often occur on the south and west walls where the sun accelerates the process.) The moisture can come from several areas around the home – heavy snow on the roof which melts and forms ice dams at the eaves; wind-driven snow that packs against the siding and melts; wind-driven rain that can find its way through the tiniest openings; flooded basements that can saturate the home with excessive moisture; lack of flashing on windows and doors and lack of caulking compound at joints; and high humidity within the interior of the home without adequate interior ventilation.

Did your deck develop a peeling problem during the winter? Peeling deck stain or paint is also caused by excessive moisture that infiltrates the deck boards through cracks or saw-cut ends. Ice and snow that sit on the deck for long periods of time will eventually melt and saturate the wood. If the deck is built too close to the soil, ground water will find its way into the structure. Pool and furniture covers also trap water underneath them, limiting air circulation and preventing the wood from properly drying. Trapped moisture and poor air circulation can cause serious peeling problems, not to mention mildew and algae growths.

Did you notice a red-brown discoloration on your siding this spring? This problem may be tannin or extractive bleeding. Tannin or tannic acid is a naturally occurring, water-soluble resin produced by the heartwood of red species of trees, such as red cedar and redwood. Tannin bleed is not a paint or stain failure. It will not harm the paint or stain, but it may accompany peeling problems as both conditions are caused by excessive moisture in the wood. You might notice tannin streaking at the butt ends of your lap siding because the cut ends, or butts, were not protected. Tannin solutions could also be running out from behind the wood or at the nails. These streaking patterns you see are also caused by high concentrations of moisture that get behind the siding. Tannin bleed can also appear as an overall diffused pattern on your wood. This diffused pattern may be the result of wet snow that packs against the house, or fog or dew settling on the siding and entering the wood because the paint or stain is too thin and porous.

The Cause

How can you avoid these problems in the future? Certain steps should be taken to eliminate moisture. If you need to, hire a reputable contractor to determine how the moisture infiltrates the wood. You may also be able to do an examination on your own. Start by checking the flashing and caulking around doors and windows, and try to maintain the interior humidity of your home at approximately 40%.

Interior moisture can travel through the smallest openings in the walls and condense on the cold sheathing and

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siding. This form of moisture is not usually noticed until the warmer weather arrives, when it is too late and the damage has been done. During the winter months, if possible, remove the snow from the roof or install heating wires at the eaves to melt the ice before water can back up under the roof shingles. You should also be sure your attic is adequately insulated to prevent heat from escaping from your living quarters. A tremendous amount of heat can be lost if proper insulation isn't used, and this heat will melt the snow on the roof. Try to keep your attic space cold with good air circulation. Attic vents should provide one square foot of unobstructed opening for each 150 square feet of floor space.

For your deck, try to remove the snow and ice as it accumulates. Place your pool and furniture covers in such a way that water can evaporate and not get trapped on your deck surface. If you are building a new deck, consider staining all sides of the boards, especially the end grain, as this will help prevent the penetration of moisture.

The Solution

How can you correct your coating problem? Determine the extent of the problem by performing tape pull tests in both peeling and "good" areas with transparent tape. Simply press the tape against dry siding (a false-positive test will result with wet wood) with thumb pressure and rip it off. If any paint or stain is removed with the tape, the adhesion in those areas is poor and must be corrected. The next step is to prepare the affected areas by scraping, power washing, or spot sanding, feathering to eliminate sharp edges where existing paint meets raw wood. (Also refer to Cabot Technical Bulletin #1 on "**Surface Preparation.**") Remove any sanding dust and allow the siding to dry thoroughly if power washing was employed.

Your deck can be handled in the same manner. For the best results, sand the stain buildup back to bare wood. Power washing may be used to lift peeling stain. Clean the deck with **Cabot Problem-Solver® Cleaner**, then rinse the deck. (Also refer to Cabot Technical Bulletin #3 "**Horizontal Hassles.**") When the deck has been allowed to dry adequately, a penetrating stain will yield the best results; and when properly applied, the coating will breathe and allow the moisture to escape before any damage can occur. These stains weather naturally, which means less labor when it comes time to rejuvenate the deck in two to four years.

How do you remove tannin bleed? Tannin stains can be removed easily with a garden hose if removal is attempted within a relatively short period of time. If the stains tend to be more stubborn, use **Cabot Problem-Solver® Brightener** diluted according to the label directions. Leave solution on the surface for 10-15 minutes, then rinse with clear water.

Tannin bleed can be controlled by preventing excessive moisture from infiltrating the wood siding. The same conditions mentioned above that cause peeling problems also pertain to tannin bleed – ice dams, high interior moisture, etc. (For additional information refer to Cabot Technical Bulletin #2 on "**Extractive Bleeding.**")

In nearly all cases, moisture is found to be responsible for exterior coating problems. To better understand and control the effects of moisture, refer to Cabot Technical Bulletin #7 on "**Controlling Moisture.**" For accurate and complete information regarding your specific project, call 1-800-US-STAIN. Technical Service Consultants are available to provide answers to all of your technical questions, and they can provide advice for every exterior coating project.



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