PERMA-CHINK® SYSTEMS, INC.

YOUR WOOD CARE RESOURCE

Technical Tip

Mill Glaze

Although there is some controversy regarding its exact meaning, the most commonly held theory about the formation of “Mill Glaze” is that it is created on logs, siding and trim by heat and mechanical compression generated during the high-speed milling process using planer blades. This combination of compressed wood fibers and high temperatures result in alterations of the sugars, cellulose, and lignin present in the wood.

According to scientist working at Forest Products Laboratories alterations are concentrated in areas of flat grain lumber where there are abrupt early-wood (EW) late-wood (LW) transitions. The dense LW bands are crushed into less dense EW bands that lie directly beneath them. When these boards are later exposed to water, crushed EW absorbs water and rebounds which causes the surface LW bands to stick up from the surface. If not removed, this can interfere with the adhesion of both water and oil-based coatings since the wood's undamaged cellular surface is not in direct contact with the coating.

The best way to remove these alterations from exterior wood surfaces, prior to application of stain, is by using Wood ReNew™, a percarbonate-based cleaner, and pressure washing. We highly recommend this procedure whenever a finish is going to be applied to new exterior siding. For interior surfaces a light sanding (120 grit) followed by a light washing with a Log Wash solution (1/2 cup Log Wash concentrate per gallon of clean water) and wiping the wall with warm water to rinse and remove the detergent from the wood. These actions will also help swell and decompress the wood fibers while removing the compromised wood. This assures improved adhesion of our finishes to the surface of the wood.

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