

## TECHNICAL BULLETIN

# Tannin Staining

Tannin staining is an overall term used to describe the stains from red cedar, cypress, and redwood that occur due to a combination of moisture and insufficient sealing. Moisture carries water-soluble color extracts (tannic acids) contained in the wood and deposits these extracts on the painted surfaces where they leave a brown or tan stain.

To control staining, a tight film is needed that does not allow water to permeate through the paint film. Solvent-based alkyd primers will form a tight film that will stop the tannin staining. However, alkyd coatings have a tendency to become hard and brittle over time and when applied over an unstable substrate, such as wood, will have a tendency to crack with age. The moisture can then penetrate through the cracks and cause the coating to peel.

Latex products provide a breathable film and will allow moisture to transfer from the substrate through the film while stopping the transmission of moisture from the outside. Latex products have the ability to stay flexible and are more resistant to cracking and peeling than alkyd products. When properly applied with the proper film thickness, latex paints give the best combination of stain blocking and durability.

We recommend two coats of Diamond Vogel's **Sure Grip Exterior Acrylic Latex Primer** followed by one coat of latex paint. For severe cases of tannin staining, use Diamond Vogel's **Prime-O-Seal Exterior Alkyd Primer/Sealer**. An acrylic finish coat such as **Palisade Ultra Premium Exterior Acrylic Latex**, **Durango Acrylic Latex Exterior Finish**, or **EverCryl Exterior Acrylic Latex Finish** would be the recommended finish coat for maximum flexibility and fade resistance. Allow a minimum of 24 hours dry time between all primer coats and/or finish coats. For new wood, it is sometimes best to let it weather for several weeks prior to painting. Stained areas or previously painted wood can be washed with a 1:1 mixture of denatured alcohol and water. Rinse the treated areas and topcoat with one coat of primer followed by one coat of finish.

For further information on tannin stains, contact your Diamond Vogel Representative.