

## **FINISHING WESTERN RED CEDAR SIDING - PAINTS & SOLID-COLOR STAINS**

By William C. Feist.

Western Red Cedar (call it “cedar” for short) surfaces are finished for a variety of reasons. The particular reason will determine the type of finish selected. The finish selected will determine the amount of protection provided to the cedar. The finishes that provide the most protection for cedar outdoors are the opaque film-forming coatings, the paints and the solid-color stains.

### **Paints**

Paints provide the **MOST** protection for cedar against weathering and against wetting by water. They are also used for esthetic purposes and to conceal any irregularities like tight knots that may be present in some grades of cedar. Good quality paints contain substantial quantities of light-blocking pigments and durable resins that help prevent weathering of the cedar surface. Paint lifetimes up to 10 years are possible with top quality acrylic latex paints applied as two topcoats over a single primer coat.

Although oil-based (sometimes called alkyd) paint films usually provide the best protection from liquid water and water vapor, they are not necessarily the most durable on cedar because they can become brittle over time. No matter how well the paint seals the cedar surface, the cedar can still move with seasonal humidity changes. This can stress and eventually crack the brittle paint film. On the other hand, latex paints, particularly the acrylic paints, remain more flexible with age. Even though latex paints may allow more water vapor to pass through, they hold up better by swelling and shrinking with the cedar without cracking.

Paints are available in a wide range of colors and different degrees of gloss which include flat, matte, semigloss and gloss surfaces. Generally, high gloss paints contain more paint resin and will perform better and last longer than the low gloss or flat paints. Flat paints tend to pick up dirt and absorb water more readily than do the high gloss paints. Because of this, mildew growth is often greater on the flat paints. Mildew growth is also usually greater on the oil-based paints as compared to the latex paints because the oil serves as a food source for mildew. The most durable house paints are **the all-acrylic latex paints** which can also be used on other surfaces such as aluminum, galvanized metal, brick, and mortar.

### **Solid-Color Stains**

Solid-color stains (also called heavy-bodied or opaque stains) come in a wide range of colors, and are essentially like thin paints and are not the true penetrating stains. They are made with a higher concentration of pigment than are the more traditional semitransparent penetrating stains, but a lower concentration of pigment than paints. Since they are essentially paints, solid-color stains obscure the natural cedar color and grain. Unlike paints the surface texture of the cedar is retained and a very flat-finish appearance normally results.

Like paints, solid-color stains protect cedar against ultraviolet light degradation. They weather just like paints, and are refinished by similar procedures. Also, like paints, they can fail

prematurely by cracking and peeling if the film thickness is not sufficient or if the surface preparation was not done properly. Refinishing can then be very difficult. Lifetimes for the stains of up to 6 years can be expected for 2-coat applications over a primer. Oil-based and latex stain versions are available. If a light-colored paint or solid-color stain is used, a stain blocking primer paint must be applied first to help control the movement of the water-soluble extractives found in cedar.

## **Primers**

Cedar contains water-soluble extractives that are responsible for its attractive color, good stability, and natural decay resistance. But these extractives can also discolor latex paints and solid-color stains unless a primer paint is used that is specifically designed to help control bleeding of extractives through latex finishes. These stain-blocking primer paints are available in alkyd and water-based formulations. The paint can label should indicate that they are recommended for use as stain-blocking primers for cedar. It's also very important that any paints or solid-color stains used on cedar be recommended by the manufacturer for such use.

## **Finish Application**

Paints will perform best on clear (free of knots) edge-grained cedar. However, cedar with tight knots can also be painted successfully, especially the rough sawn surface versions. Solid-color stains are often chosen as the best finish for the rough sawn cedar surfaces. If smooth cedar is used, research has shown that scratch sanding the surface with 50–80 grit sandpaper will improve paint adhesion and paint performance significantly without affecting the final appearance. Research has also shown that cedar should not be weathered before painting because weathered cedar surfaces are prone to early paint failure. **Power washing should never be used** before finishing or refinishing cedar because this process can severely damage the wood surface fibers and make it difficult for the finish to adhere properly.

When applying paint and solid-color stains to previously unfinished cedar it is very beneficial to apply one coat of primer paint to the back (sometimes called back priming), edges and ends of siding boards before the cedar is installed. Back priming helps reduce wetting up the back side of the siding. Coating the ends and edges helps prevent water penetration in those areas. It's always important to remember that good finishing practices, proper siding installation and proper siding venting are a necessity for good cedar performance and for the longest lifetime for the finishes. Applying the finish by brush is usually the best procedure to use for the best durability.

## **Finish Quality - Getting What You Pay For**

Remember, when buying paints and solid-color stains for cedar, it is always best to use the top-of-the-line of a supplier you know and trust. For example, the top-of-the-line paint of most manufacturers is usually the all-acrylic latex house paint. There are no standards, regulations or rating systems used to help you select commercial finishes and you should rely on your paint dealer and a skilled painter for the best recommendations.