

FINISHING WESTERN RED CEDAR SIDING - CLEARS, SEMI-TRANSPARENT STAINS, BLEACHING OILS

By William C. Feist.

Quite often Western Red Cedar (call it "cedar" for short) users prefer a finish that preserves the natural color and appearance of cedar. However, there is no easy way to maintain the natural look of cedar exposed outdoors and regular maintenance will be necessary. Clear film-forming finishes such as shellac and varnishes do provide a desirable natural look. However, shellac is very water sensitive and should NEVER be used outdoors at any time. Even a high quality marine varnish resistant to sunlight still permits the sunlight to degrade the cedar surface underneath causing loss of adhesion and peeling. Varnishes do not last more than a year or two on cedar and often require extensive surface preparation before they can be refinished. The newer varnishes containing transparent trans-oxides and ultraviolet (UV) absorbers perform better than traditional varnishes, but they still will require regular maintenance especially when exposed in areas having a lot of sun.

Penetrating finishes that don't leave a film on the surface, can protect cedar outdoors while allowing the characteristics of the cedar to show through the finish. True penetrating cedar finishes fall into three general categories: (a) oils, (b) the unpigmented or lightly pigmented water repellants and water-repellent preservatives, and (c) more heavily pigmented solventborne oil-based semi-transparent stains. A special class of penetrating finishes are the weathering stains and bleaching oils. All the penetrating finishes allow cedar to breathe and since there is no film formed, the finish cannot crack and peel. Another important point, these penetrating finishes normally do not require extensive preparation of the cedar surface before being applied.

Another category of cedar finishes is the nonpenetrating "stain" such as latex semi-transparent stains. These finishes do not penetrate the cedar and form a film. They are used much like thinned paints.

Oils

Many exterior penetrating oil or oil-based natural finish formulations are available for cedar. The most common oils used are linseed and tung. However, these oils may serve as a food source for mildew if applied to cedar in the absence of a mildewcide. The oils will also perform better if a water repellent is included in the formulation. All these oil systems will protect cedar, but their average lifetime may be only as long as that described for the water-repellent preservatives below.

Water Repellants and Water-repellent Preservatives

A penetrating water repellent or water-repellent preservative may be used as a natural cedar finish. Many commercial varieties are available. The simple water repellants are usually short-lived products and are not recommended for cedar outdoors. The water-repellent preservatives are preferred over the water repellants because they contain a preservative (a fungicide) which helps control mildew growth. Some formulations contain ultraviolet light absorbers, stabilizers

or blockers. Waterborne and solventborne formulations are available. These unpigmented or lightly pigmented finishes do not totally prevent ultraviolet damage and have minimal protection for cedar. They may last 1 to 2 years depending on exposure and will need frequent refinishing. However, they are easily refinished requiring minimal surface preparation.

Semi-transparent Stains

Solventborne oil-based (also called alkyd) semi-transparent stains are the finish of choice for cedar that is fully exposed to the weather. Although they can be used on both smooth and roughsawn cedar, they will perform much better and last longer when applied to roughsawn cedar. These penetrating cedar stains are formulated so that the solvent carries the stain components into the cedar surface and no film is formed. The stain then slowly weathers away from the cedar surface by a process called erosion. These stains contain pigments which provide color and greatly increase the durability of the finish by protecting the cedar surface to some extent from the damaging effects of ultraviolet rays in sunlight. Lifetimes may vary from 3 to 6 years depending on cedar surface texture and quantity of stain applied.

Latex semi-transparent stains are similar in appearance to the oil-based semi-transparent stains. However, the semi-transparent look is achieved by the formation of a thin film and there is little penetration. This film is often not thick enough to provide durability, and it tends to degrade by flaking from the cedar surface. Refinishing cedar that has been finished with a latex semi-transparent stain may require substantial surface preparation. There currently are efforts by many stain companies to develop water-borne semi-transparent stains that penetrate cedar. These water-borne formulations have been only moderately successful at duplicating the properties of traditional oil-based solvent-borne stains. However, ongoing research suggests that penetrating, erodable semi-transparent latex stain finishes for cedar will be available in the future.

Exterior Bleaching Oils and Weathering Stains

Exterior bleaching oils and weathering stains are available which give cedar surfaces a weathered and gray look. These finishes include pigments to give the cedar a weathered look and may contain a water repellent and a mildewcide. Some of these pigmented penetrating finishes contain oxidizing agents and/or bleaches that accelerate the natural weathering process and achieve a uniform weathered gray look on the cedar more rapidly.

Finish Quality and the Changing World

Remember, when buying any natural finish for cedar, it is always best to use the top-of-the-line of a supplier you know and trust. Since there are no standards, regulations or rating systems used to help you select these natural finishes, you should rely on your paint dealer and your painter for the best recommendations. **One last note** -- things are changing in the world of wood finishes and many traditional oil-based finishes that use petroleum solvents (sometimes called solvent-borne) may not be available in some areas of the country. More and more exterior finishes for cedar are latex (water-borne). New natural finish formulations are being introduced for cedar.