EXTERIORS
EXTERIOR FINISHES

Glossy vs. Flat Paint

Solid-Color Stains

GLOSSY VS. FLAT PAINT

Paints are available in different degrees of gloss, including flat, matte, semi-gloss, and gloss. Generally, high-gloss paints contain more paint resin and less pigment, and 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 the high-gloss paints. Because of this, mildew growth is often greater on the flat paints.

SOLID-COLOR STAINS

Solid-color stains are essentially thin paints, not true stains. Solid-color stains have a higher concentration of pigment than semitransparent penetrating stains but a somewhat lower concentration of pigment than standard paints. So solid-color stains cover the wood's natural color while retaining the wood's surface texture.

Solid-color stains will not last as long as paints (**Figure A**), but often they are the finish of choice on textured or rough-sawn siding products. They also can be applied over existing paints and solid-color stains, and normally leave a flat finish appearance. Like paints, solid-color stains protect wood against UV degradation.

FIGURE A: SUITABILITY AND EXPECTED LIFE OF EXTERIOR WOOD FINISHES

Type of Exterior Wood Surface			Water-Repellent Preservatives and Oil		Semi-Transparent Stain		Paint and Solid-Color Stain		
			Suitability	Expected Life (years)	Suitability	Expected Life (years)	Suitability	Expected Life (years)	
								Paint	Solid-color Stain
Siding	**Cedar & redwood**	Smooth (vertical grain)	High	1-2	Moderate	2-3	High	4-6	3-5
		Rough-sawn	High	2-3	High	5-8	Moderate	5-7	4-6
	Pine, fir, spruce	Smooth (flat-grained)	High	1-2	Low	2-3	Moderate	3-5	2-4
		Rough (flat-grained)	High	2-3	High	4-7	Moderate	4-6	3-5
	Plywood (Douglas fir & Southern Pine)	Sanded	Very Low	1-2	Low	2-4	Moderate	2-4	2-3
		Textured (rough-sawn)	Low	2-3	High	4-6	Moderate	4-6	3-5
		Medium-density overlay	—	—	—	—	Excellent	6-8	5-7
	Hardboard, medium density	Smooth or Textured	—	—	—	—	High	4-6	3-5
Millwork (often pine)	**Windows, shutters, doors, exterior trim**		High	—	Moderate	2-3	High	3-6	2-4
Decking	**New (smooth)**		High	1-2	Moderate	2-3	Very Low	2-3	1-2
	Weathered (rough)		High	2-3	High	3-4	Very Low	2-3	1-2

These data were compiled from the observations of many researchers. Expected life predictions are for one and two coats of each finish at an average location in the continental United States. Expected life will vary in extreme climates or exposure, such as desert, seashore, and deep woods.

CLEAR EXTERIOR FINISHES

A penetrating water-repellent preservative contains a preservative (a fungicide), a small amount of wax (or similar water repellent), a resin or drying oil, and a solvent (such as turpentine, mineral spirits, or paraffinic oil). Some may be lightly pigmented, and waterborne formulations are also available.

Unpigmented, or clear, exterior finishes provide minimal protection for wood. They can reduce warping and checking, prevent water staining at the edges and ends of wood siding, and help control mildew growth. Wood treated with preservative is easily refinished and usually requires minimal surface prep.

Solid-Color Stains

Clear Exterior Finishes

Clear Exterior Finishes

Semi-Transparent Stains

Landscape Protection

Surface Prep

Paintable water-repellent preservative (such as DAP Woodlife II®,) is a good treatment for bare wood before priming and painting. This pretreatment keeps rain or dew from penetrating the wood, especially at joints and on end-grain, thus decreasing the shrinking and swelling of the wood. As a result, less stress is placed on the paint film and its service life is extended.

Penetrating Oils

Most penetrating oil-based and alkyd-based finishes available contain linseed or tung oil. These oils must have a mildewcide; otherwise, they serve as a food source for mildew. Oils also perform better if a water repellent, such as wax, is included in the formulation. All these oil systems will protect wood, but their average lifetime may be only one to three years.

SEMI-TRANSPARENT STAINS

Semi-transparent penetrating stains are pigmented water-repellent preservatives with a high resin content. Their life expectancy may vary from three to six years, depending on the texture of the wood surface and the quantity of stain applied.

Solvent-borne stains (oil- or alkyd-based) penetrate the wood surface to a degree, are porous, and do not form a surface film like paint. They will not trap moisture that may encourage decay, and they will not blister or peel even if moisture penetrates the wood. Better-quality solvent-borne penetrating stains contain a fungicide (preservative or mildewcide), a stabilizer to protect against ultraviolet radiation (an absorber), and a water repellent.

Waterborne stains (latex-based) do not penetrate the wood surface like their oil-based counterparts. Newer latex formulations are being developed that may provide some penetrating characteristics.

LANDSCAPE PROTECTION

To protect any plants during a job, saturate the ground and soak all the leaves with water. Then cover the plants with woven poly tarps to shed the bleach solution. Do not use plastic sheeting; the plants must breathe.

After spraying, rinse everything (including the windows and woodwork) thoroughly with water. The siding should dry for two or more days before applying the clear finish.

When using a cleaning solution containing bleach, cover any brass, copper, or aluminum fixtures to avoid corrosion. Also cover any stained or painted trim.

SURFACE PREP

Water-based finishes require more thorough surface preparation, cleaning, and careful application than oil-based finishes. Remove any loose paint, and clean any dirty or oily surfaces.

Cleaning Siding Surfaces

Dirty siding will require a good cleaning (a detergent wash followed by power washing and thorough drying) to remove chalk and dirt. For most surfaces, use Spic-and-Span® powdered cleaner. On a very oily surface, use painter's naptha.

Surface Prep

Painting Stucco

Painting Fiber-Cement

Painting Asbestos Siding

Filling Nail Holes

Use hot-dipped galvanized finish nails for all trim work that will be filled. The material used to fill nail holes depends on the time available and the type of exterior finish:

Linseed oil-based filler, such as DAP Painter's Putty® (Dap Inc.; 800/543-3840, www.dap.com), works well under an oil-based primer. Add "whiting" (a thickening powder available through paint suppliers) to this somewhat gooey putty to make it more workable. However, it's important that the putty be allowed to dry for a few days before primer is applied.

Exterior spackle. If an oil or latex primer will be applied the same day, use an exterior spackle, such as UGL 222 Spackling Paste (United Gilsonite Laboratories; 800/272-3235, www.ugl.com). Exterior spackle shrinks as it dries, but the hole can be "overloaded" to account for this shrinkage. Sand any proud material flush after it dries.

Epoxy. Where a latex primer will be applied immediately after the holes are filled, use a quick-hardening, two-part filler, such as Bondo®.

PAINTING STUCCO

When painting stucco:

- Newly applied stucco should be allowed about 30 days to cure before painting, depending on the weather conditions.
- Existing stucco surfaces should be power-washed and allowed to thoroughly dry before painting. Do not use a water blaster, as the pressure can do severe damage to the stucco.
- Stucco should be painted only with acrylic-based paints with adequate vapor transmission characteristics, as these prevent new moisture-related problems within the house.

PAINTING FIBER-CEMENT

Fiber-cement siding does not expand and contract with humidity changes like wood siding does, so it holds paint very well. If the siding is already painted and the paint is in good condition, clean the surface, and then apply at least two coats of high-quality acrylic latex paint.

Priming may not be necessary if the old paint is in good condition (free from peeling, cracking, flaking, etc.). However, if the old paint is glossy, or there are bare spots, it may be best to prime first. Match the primer to the paint of the same brand.

PAINTING ASBESTOS SIDING

Old asbestos-cement shingles behave like fiber-cement. In general, they take and hold paint well. If the shingles are in good shape, follow the guidelines for fiber-cement.

If some of the siding is deteriorated, showing loose fibers or broken edges, special precautions may be required. Aggressive scraping or sanding of loose paint is not advised since this could release asbestos fibers.