

Paints, Primers and Stains



Eastbrook
UNIVERSITY

Choosing the right coatings for home surfaces.

1 Paints

There are basically two types of paint on the market, each named for its primary binding agent. They are acrylic latex paint (known as “water-based”) and alkyd paint (known as “oil-based”). Acrylic latex paint is made with water and an acrylic resin binder. Oil-based paint uses a hydrocarbon-based solvent as the vehicle and an alkyd resin.

The binders in both are used to solidify the paint into a film. Typical binders for latex include synthetic or natural resins such as acrylics, polyurethanes, polyesters, and melamines. Linseed oil, tung oil or alkyd resins are the primary binders for oil-based paints.



Color. Pigment is color; it covers and hides the surface. Colored pigments are ground into particles and stirred into paint. Since pigment is particulate, paint cans that sit for awhile need to be shaken to mix color that has settled to the bottom.

Adhesion. Paint is no good if it doesn't stick and maintain a uniform appearance.

The binder joins the pigment particles and gives paint its sticking power.

It also dries into a protective finish.

In water-based paints, the binder is usually a plastic, either acrylic, vinyl or a combination of both. The binder in oil-based paints is either a natural oil or a synthetic resin (alkyd).

Gloss. Gloss, or finish, is determined by the ratio of pigment to binder. The more binder in a paint, the shinier the finish. Finish choices range from flat to high-gloss. Flat finishes are dull and can help hide surface imperfections. High-gloss draws attention to itself, and surface imperfections, while giving off a brilliant shine. Paints identified as low-luster, eggshell, satin, soft gloss, and semi-gloss lie between the two extremes.

2 Primers

A primer is a special type of paint that goes on before the finish coat. Primers lay the foundation for an effective painting job and are made for use on wood, metal, drywall and concrete. Whether used on interior or exterior projects, primers ensure that the painting surface has an ideal, uniform texture so paint adheres effectively. In addition, primers seal up porous surfaces and prevent stains and previous colors from showing through.

While paint can be applied to already-painted surfaces without priming, it's usually better to prime so your work is as durable and long-lasting as it can be. When working on painted surfaces, priming is always necessary if you're switching paint types. For example, going from oil-based paints to latex-based paints and vice versa, or changing colors

Interior vs Exterior Paints

Different paints have different properties and are formulated for different purposes. Interior paint is made to be scrubbed, resist staining, and allow cleaning. Exterior paints are made to resist temperature changes, fading from sunlight, and exposure to moisture which can cause mildew. While there can be many subtle differences in their formulations, the primary difference between interior and exterior paints is in their choice of resin because exterior paints must be tougher to resist peeling and chipping.



EastbrookHOMES

Paints, Primers and Stains



Eastbrook
UNIVERSITY

Page 2

Choosing the right coatings for home surfaces.

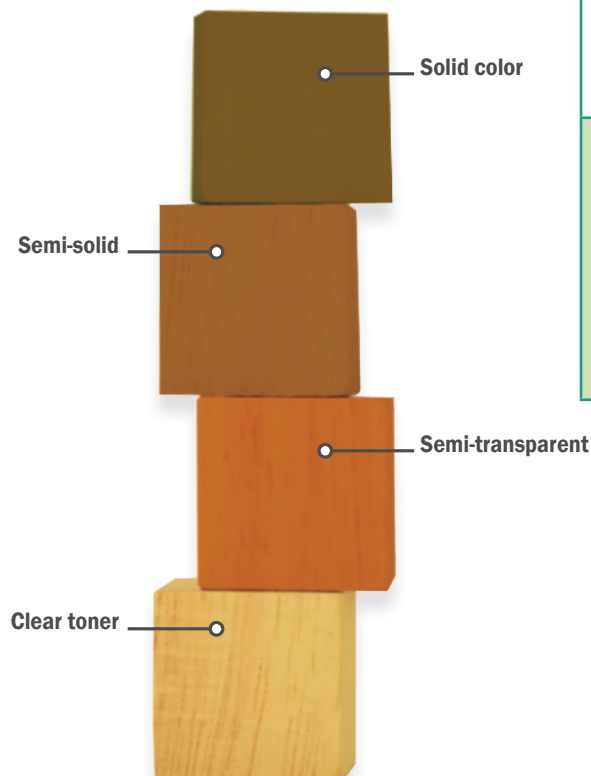
drastically. Also, if paint is cracking, crumbling or has surface damage, priming can eliminate any problems with your paint job (after you've made repairs and prepared the surface).

Primers are formulated for interior surfaces, exterior surfaces, metals and are also available in tints. Interior primers are used to seal, increase adhesion and create a uniform surface for paint. Exterior primers help minimize cracking and mildew growth and protect masonry surfaces from alkalinity and efflorescence (the fine, white, powdery deposit of water-soluble salts left on the surface of masonry as the water evaporates.) Exterior primers come in specific formulas for use on wood, masonry or metal. Metal primers also help inhibit corrosion.

3 Wood Stains

Wood stains are used to extend the life of exterior wood surfaces because, left untreated, bare wood is destined to turn gray and rot.

A wood stain is a finish for wood that contains a dye or pigment. Stains typically impart a semi-transparent or opaque coating and are designed to change the color of a surface without concealing the grain pattern or surface texture. Unlike paints, which form a film on the surface, wood stains soak into the wood, accenting the wood grain rather than hiding it. Stains also become part of the wood, which helps prevent the cracking, peeling, chipping, or blistering that commonly occurs with paints.



The Four Major Types of Stain

Solid Color. Looks like a flat paint; hides the wood's grain but not its texture. Forms a film that can peel if not properly applied.

Semi-solid. Has less pigment than a solid-color stain, so it only partially obscures the wood's grain. Leaves no surface film; can't peel.

Semi-transparent. Contains enough pigment to change the wood's color but not enough to obscure its grain. Leaves no surface film; can't peel.

Clear Toner. Finely ground iron pigments called transoxides block the sun without obscuring the wood's grain and impart a warm tint. Leaves no surface film; can't peel.