

Information Data Sheet

Re Paint

All paints, oil-based and latex, are made of three main components:

- binder
- pigment
- liquids

They can also contain other ingredients, which are known collectively as additives.

Binder is key to paint formulation. The type and amount of binder affect everything from stain resistance and gloss, to adhesion and crack resistance.

Waterborne paints use several polymer types as binders, including:

- 100 percent acrylic
- styrene-acrylic
- vinyl acrylic (or "PVA" for polyvinyl acetate).

Oil paints use a binder based on a drying oil such as linseed or soya, or some other type of modified oil (in which case these paints are called alkyds).

In general, acrylic paints have better exterior durability than do oil-based or alkyd paints. They have better colour retention, chalk resistance and resistance to longer-term embrittlement and cracking.

Higher quality acrylic paints have greater durability and other performance advantages over lower quality latex paints -- mostly due to the type and amount of acrylic binder used.

Quality paints with 100 percent acrylic binders are especially durable. They adhere to many different surfaces, such as:

- wood
- masonry
- aluminium cladding
- vinyl cladding

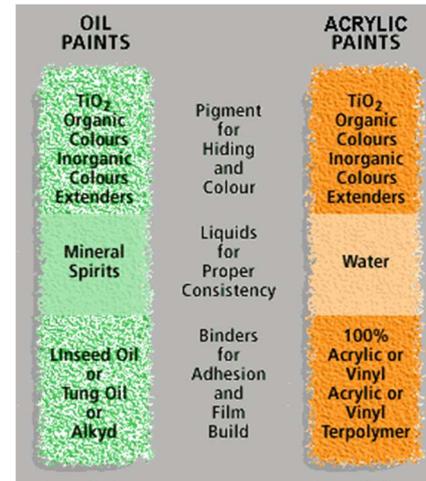
These all-acrylic paints are more durable than other waterborne paints (with vinyl binders) on fresh masonry surfaces. Other paints will show early colour loss and film deterioration while 100 percent acrylic paints are resistant to the effects of alkaline surfaces.

Pigments are finely ground particles or powders which are dispersed in a paint

"Prime" pigments provide colour and opacity (opaque coverage). The most common prime pigment is titanium dioxide, which is white. It is used in acrylic and oil-based paints.

"Extender" pigments provide bulk to the paint at a low cost. These pigments impact on properties like scrub resistance, stain resistance and chalk resistance.

Higher quality paints will have higher levels of prime pigment than lower quality paints. Also, better quality paints have less extender pigment in relation to binder level. This makes them more chalk resistant on exterior exposure, providing better colour retention and durability. Though all paints will eventually fade, the rate of fading will be much lower with better quality paints.



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Re Paint cont...

Additives are performance-enhancing ingredients that are typically added to top quality paints more than to ordinary paints.

Additives provide desirable properties such as ease of application and the appearance of the applied paint. Some also have protective qualities.

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Some other additives used in acrylic paints are:

-) dispersing agents (to help the pigment remain evenly distributed throughout the paint, rather than settling);
-) preservatives (to prevent spoilage of the paint during storage);
-) materials to minimise foaming during manufacturing and application).

The liquid portion of the paint is either water (for acrylic paints) or solvent (for oil-based or alkyd paints).

A can of quality paint will contain a higher volume of solid material (pigment and binder) than do ordinary paints. In the case of top-quality acrylic paints, that means more solids and less water.

Therefore, if a top-quality paint and an ordinary paint were applied at the same spread rate, the top-quality paint would dry to a thicker paint film due to its higher solids content.

A top-quality paint will contain 35 to 45 per cent volume solids, while an ordinary paint will contain about 25 to 30 per cent.

