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For more information on paints and coatings, visit the PQI Web site at www.paintquality.com

Given the option, would new home buyers pay more for a **paint upgrade?**



"I would absolutely pay the money to have an upgrade."

"It would be worth it to pay for an upgrade."

"It's a great idea!"



No doubt about it!

PQI was curious to see if new home buyers would opt for a paint upgrade if their builder made it available. So we set up some focus groups to look into the question. As the sample of quotes reveals, the overwhelming majority said, "absolutely!" And they'd be willing to pay a lot more for it, too.

Almost all the home buyers felt that the standard interior paint used in new homes was of inadequate quality. Which meant they would have to repaint soon after moving in.

They understood that a quality paint would last longer, cover better and be more stain-resistant. Several said they felt so strongly about paint that they'd probably choose the builder who offered the upgrade versus one who didn't.

So, encourage your home builder customers to offer home buyers a painting option with top quality paints and a broad color selection. . . clearly the home buyers are interested!



We kept the same address, but built a new home with a lot more features.



We're still located at www.paintquality.com, but you won't recognize the place. Our PQI site has been completely redesigned. Now, professional painters who visit will find even more ways to access even more paint information. Paint professionals will discover valuable marketing tools and information links. Our popular Paint Problem Solver is now



interactive. And, our Recommendations feature has been expanded to include surface preparation for each type of substrate, as well as guidance in selecting primer and finish coats. Other features include a Paint Encyclopedia and answers to hundreds of questions (Quick FAQs). So drop by. We think you'll like our new home.

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Editor's Note

Our aim with *Professional Painter* magazine is to provide you with a mixture of technical information, application advice and marketing tips that will help you get the job, satisfy your customer, and gain repeat business. Judging by the feedback from our premiere issue, it's accomplishing its goal.

Numerous professional painters have told us they are making good use of the information and materials contained in that inaugural issue. If you would like to offer feedback and suggestions for our magazine, we'd like to hear from you. Simply go to our website at www.paintquality.com and click on "Contact Us" on the home page.

We believe this, our second issue, will be as helpful as the first. In this issue, for example, we continue our coverage of what's in a can of quality paint by taking a look at the binder, the ingredient that gives paint its toughness and adhesion.

Elsewhere in the issue, you'll find plenty of advice and information on other painting topics, such as the special needs and requirements of successfully painting masonry surfaces; the relationship between application weather conditions and exterior latex paint performance; and a summary of the basic aspects of spray painting. We've even included a sampling of contractor questions taken from our website.

To help you in your sales presentations, we have tear-out pages on the benefits of using quality caulks and of painting masonry. Plus, our "Smart Marketing" page offers some tips on how to use the Internet as a sales tool.

So, thanks again for your feedback. We're glad you like the Paint Quality Institute's new publication and hope you continue to find the reading enjoyable and informative.

John Stauffer
Editor



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MASONRY:

A Solid Base For Building Your Business

If you're looking to build your business, take a good, solid look at masonry.

It's one of the most common materials used in the exteriors of residential, light commercial and commercial buildings. Yet, there are many homeowners and building managers who are unaware that masonry, despite its rock-hard appearance, can be painted with excellent results. Or they're under the impression that if paint is applied, it will chip, peel or otherwise deteriorate rapidly.

If you're going to pursue this market successfully, you first need to educate your customers that they do not have to "live with" the original color or appearance of their masonry if they don't want to. To help you accomplish this, we've included a special tear-out page at the end of this article to use with prospects. You'll also find some selling tips in the "Smart Marketing" column on page 17.

Once you've made the sale, the success of a masonry paint job will then depend greatly on surface preparation and your choice of coating. And, to help you in these areas, we've provided some tips below.

SURFACE PREPARATION

Masonry exteriors can all be successfully painted, as long as you take certain precautions when preparing the surfaces. Before painting masonry, it is important to ensure that the surface is sound, free of dirt, powdery dust and loose sand, yet rough enough to allow good adhesion of the coating.

Thoroughly clean weathered masonry with a wire brush, power brush or power washer to remove all dirt, unbound sand, chalk or loose surface particles. If any mildew is present, treat it with a mixture of one part bleach and three parts water prior to the cleaning process.

Once you've made the sale, the success of a masonry paint job will depend greatly on surface preparation and your choice of coating.

Efflorescence, a white, sometimes crusty or powdery material, may also be present. If allowed to remain, this salty deposit can interfere with paint adhesion and ruin the appearance of the job. Remove efflorescence by power washing, wire brushing, scraping or, if necessary, re-profiling. If possible, identify the source of the moisture behind the substrate that is causing the efflorescence and eliminate it. When power washing, use plain water and take care not to force water into cracks or loose mortar joints.

After removal of all dirt, mildew and efflorescence, thoroughly rinse the surface to eliminate any residual particles, dust or chemical solutions. Undercut any cracks and seal them with an acrylic or siliconized acrylic caulk.

UNPAINTED MASONRY

If the masonry has not been painted before, it may be extremely porous. Rather than use large amounts of paint filling in surface pores, start with a quality water-based or solvent-based masonry sealer. This will provide a smoother, less porous surface on which to paint. An exterior latex primer recommended for masonry can also serve this purpose.

New masonry should cure for at least 30 days (ideally one year) before painting. However, if unable to wait for this to happen, take these two points into account:

- 1) Do not apply alkyd or vinyl acrylic latex paints directly to bare masonry that is less than a year old without first applying an alkaline-resistant primer or sealer. Otherwise the high degree of alkalinity of the masonry may attack the paint, prematurely ruining film integrity and fading the color.
- 2) 100% acrylic latex paints are far more resistant to alkaline attack than alkyd and vinyl acrylic latex paints, and can be applied to fresh masonry after only 30 days without the use of a sealer, if necessary. To be safe, however, application of a sealer is always a good idea if the masonry is less than a year old.

PREVIOUSLY PAINTED MASONRY

If the masonry has been previously painted, use wire brushing to remove all powdery dust, dirt, peeling paint and other loose material, and then rinse it with clean water. If the surface is extremely dirty, light re-profiling may be necessary. Remove any mildew or efflorescence as described earlier. Power washing is an effective approach as well, but use care not to force water into porous sections, cracks or mortar joints.

In a repaint situation, use a primer where old paint has been removed during surface preparation or through weathering, or if the surface is very porous or uneven in porosity. Priming the entire job will improve the overall adhesion and uniformity of appearance of the finish coat.

The guidelines above are common to all masonry surfaces. Described below are additional concerns when painting stucco, EIFS, brick and concrete.

STUCCO


In the case of new stucco, a recent trend in construction practices has resulted in problems due to painting highly alkaline stucco prematurely with inadequate paint systems. The trend relates to the waiting period prior to painting.

COMING SOON... SEMIFLEXIBLE COATINGS

With the advent of EWCs, contractors are able to offer a coating that provides great protection for masonry. But another, somewhat related coating will soon be coming to the North American market, one that has been used successfully in Europe for years. It is a high performance latex "semiflexible" paint that will offer flexibility falling between that of conventional quality latex paint and elastomeric coatings.

Compared to EWCs, semiflexible coatings provide superior dirt resistance and are applied in a thinner film (dry film thickness of 4 - 6 mils in one coat, compared to 14 - 18 mils in two coats with an EWC).

In addition, their crack-bridging capability, while not as good as quality elastomerics, will significantly exceed that of conventional paint applied at normal spread rates. As a result, these semiflexible coatings can provide protection from rain and other applied sources of moisture on all types of masonry surfaces, including bare and previously painted.



EWCs are typically applied by airless spraying, followed by back rolling.

In the past, it was customary to defer painting of new stucco for months, even a year. This allowed high surface alkalinity to dissipate to more suitable levels. Today, the trend is to paint new stucco as quickly as reasonably possible.

So, if you have to paint stucco before it is more than 30 days old, be sure to use an alkali-resistant masonry primer or sealer and a top quality 100% acrylic latex paint recommended for exterior masonry surfaces.

EIFS (SYNTHETIC STUCCO)

EIFS stands for Exterior Insulation and Finish Systems. It is a multilayered wall cladding topped off with a thin layer of acrylic-based cementitious material. It's often referred to as "synthetic stucco."

If you are going to paint an EIFS-clad home or commercial building, follow the same surface preparation procedures as for other types of masonry. In addition, it is extremely important that you take these extra precautions if power washing EIFS:

- 1) Make sure all joints and seams, including those between walls and windows, doors and other protrusions, are thoroughly caulked and sealed before power washing. Otherwise, water could be forced into the wall cavity and potentially cause wood rot and other types of moisture damage.
- 2) Use plain water, without any cleaning agents or bleach.
- 3) Take special care that the water pressure is not so high as to damage the surface of the cementitious material.

BRICK

Surface alkalinity is usually not a problem with bricks because they are normally chemically neutral. However, they are set in mortar that can be quite alkaline. Thus, if fresh mortar has been used to repair or replace loose or missing bricks or mortar, apply an alkali-resistant masonry sealer or primer.

Weathered brick surfaces are often quite variable in porosity from brick to brick, and between brick face and mortar, so it is generally a good idea to apply a sealer or primer to maximize sheen uniformity of the finish coat.

CONCRETE

Painting concrete is similar to painting other masonry surfaces except for three additional concerns:

- 1) If smooth, highly glazed surfaces are present, they may need to be roughened to ensure good adhesion. In most cases, light re-profiling will do the job. If this is not practical, etch the surface with a 6% to 10% solution of muriatic acid, and then rinse it thoroughly with water. When using muriatic acid, always protect your eyes and skin.
- 2) The forms used for casting concrete are often coated with an oily release agent to prevent the concrete from sticking to the form. To ensure that the surface is free of any oily contaminants, use either power washing, light re-profiling, or etching with a 6% to 10% solution of muriatic acid with a small amount of detergent added. Then, rinse the surface thoroughly with clean water.
- 3) Cementitious patching compounds are often applied to concrete prior to painting in order to make repairs and smooth imperfections. Because they are fresh, the patches are more alkaline than the surrounding material, and should be primed with an alkali-resistant sealer or primer.

PAINT SELECTION

When it comes to paint selection, a top quality 100% acrylic latex paint is an excellent choice for masonry surfaces. This type of paint resists the effects of alkalinity that can "burn" or break down the binder of an ordinary paint.

Compared to highly pigmented "economy" products, it is also less prone to allow efflorescence to pass through it. And 100% acrylic latex paint is permeable. It allows moisture within the masonry to escape through the paint film rather than trapping it behind the film, potentially causing blistering and adhesion loss, as can occur with oil-based coatings.

BRIDGING THE CRACKS

High quality latex paints can greatly improve the appearance of a masonry surface and protect it from the elements. In climates subject to wide fluctuations in temperature, however, masonry exteriors are prone to an additional problem that conventional paint — even top quality products — can't always handle: water penetrable surface cracks.

In the past, preventing the appearance or re-appearance of these cracks has not always been easy. But now, that has changed. The reason: A generation of paints called elastomeric wall coatings, or EWCs, that have the ability to actually bridge and cover the cracks that can develop in a masonry wall.

EWCs are specially formulated with binders that provide far greater flexibility and elasticity than those used in conventional paints. As a result, an EWC can stretch to span a crack as it expands due to change in temperature. It returns to its original shape without wrinkling when the crack contracts. This crack-bridging capability results in an effective barrier against the atmospheric gases and wind-driven rain that can undermine a wall's structural integrity if allowed to penetrate the cracks.

PROPER THICKNESS REQUIRED

Elastomeric wall coatings perform well only when applied in a thick film. A thick film ensures that there is enough material to span a crack at its widest, and helps maintain the desired appearance.

For best performance, apply the elastomeric coating at a total dry film thickness of at least 14 mils. Use of film thickness greater than 14 mils will improve performance even more. Application below the recommended thickness can result in reduced water resistance and hiding properties, as well as reduced crack bridging. Dirt resistance and evenness of appearance may also suffer.

To obtain the proper thickness, apply two heavy coats rather than one extremely thick coat. This helps cover any pinholes in the first coat. The typical application calls for either airless spraying followed by back rolling, or use of a long nap roller.

Just as it does with other types of exterior finishes, quality pays when it comes to elastomeric coatings. Top quality EWCs made with 100% acrylic binders, for example, may cost more, but they have a longer life expectancy than lower quality coatings.

So, depending on the condition of the surface, there may be more than one approach to painting and protecting masonry. That's why it is important to use your knowledge of the special nature of this substrate when discussing a masonry paint job with a customer. It will boost your image as a painting professional...and help build your business. ■



Painting & Protecting Masonry Exteriors

Masonry is one of the most common materials used in the exteriors of homes and other buildings. The reason: it's strong and durable, offers long-term value, and comes in a variety of forms, including brick, stucco, concrete and block.

Because of its rock-hard appearance, many people believe masonry can't be painted. Or they're under the impression that if paint is applied, it will chip or peel rapidly.

According to The Rohm and Haas Paint Quality Institute, however, that's not the case. Masonry, like most exterior building materials, can be painted...and with excellent results. All that's required is careful surface preparation, proper paint selection and skilled professional application.

Top quality exterior 100% acrylic latex paints are an excellent choice for masonry surfaces. These paints resist the effects of the alkalinity that is present in masonry. They also help prevent efflorescence, the formation of white, salt-like deposits on the surface.

So, if you're eager to change the look of your masonry exterior, and protect it at the same time, consider a quality paint job. You'll be glad you did.

www.paintquality.com



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Why It's Important to Use Top Quality Caulk

The great majority of exterior and interior paint jobs involve some use of caulk. And, according to The Rohm and Haas Paint Quality Institute, a leading authority on paints and coatings, the quality of caulk that is used can make a big difference in the appearance and long-term performance of any paint job. Top quality water-based all-acrylic caulks and siliconized acrylic caulks are the best choices for most applications. They cost a little more, but compared with "economy" caulks, they offer a host of important benefits.



Benefits of Painting Masonry

- **Revive a Dull, Lackluster Appearance**
Masonry surfaces are subject to discoloration over the years. A quality paint job will rejuvenate the masonry and give it a uniform and fresh, new look.
- **Change to the Color of Your Choice**
You don't have to "live with" the original color of masonry if you don't want to. With paint, you can choose from a broad range of colors.
- **Get a Look That's Long-Lasting**
Top quality exterior 100% acrylic latex paints stand up well to the sun's ultraviolet rays. This helps prevent chalking and premature fading of the paint color.
- **Protect It From Moisture Intrusion**
A new generation of paints called elastomeric wall coatings actually span the hairline cracks that can form in masonry. This ability produces not only a uniform finish, but also an effective barrier against wind-driven rain that could penetrate the cracks and damage the wall.

Benefits of Top Quality Water-based All-acrylic and Siliconized Acrylic Caulks

- **Excellent adhesion**, enabling them to grip onto a wide range of building materials, including wood, aluminum and vinyl siding, ceramic tile, concrete, glass, plaster, bare aluminum, brick and plastic – even under wet conditions.
- **Superior flexibility**, to help fill gaps that may widen slightly over time due to temperature changes...and to do so without cracking.
- **Greater long-term durability.**
- **Paintable**, unlike similar-sounding "silicone" caulk, which cannot be painted.
- **Less odor** than silicone caulk.

www.paintquality.com



BINDER: The 'GLUE' That Holds Paint Together

This second in a series of articles on paint ingredients describes how the binder holds pigment particles together while providing film adhesion and integrity.

As a painting contractor, it's important that you know how the ingredients of a paint affect its performance. It's important because it will help you select the right paint for your customer's job, and because it will aid you in explaining the paint's benefits to your customer.

In the previous issue of *Professional Painter*, we took a look at pigments, the finely ground particles that provide paint with its color and hiding. Now, we'll look at another ingredient, the binder or "glue" that holds paint together.

The binder is a resinous material that surrounds the pigment particles, binds them together, and gives the paint film its integrity. When paint is applied and dries, it is also the binder that provides adhesion to the surface.

The binder is a key ingredient that affects almost all paint properties. Not only does it impact adhesion and related properties such as resistance to blistering, cracking and peeling, it also affects other resistance properties such as resistance to scrubbing, chalking and fading, and application properties such as flow, leveling, and gloss development.

LATEX-BASED BINDERS

The binder in a latex paint is a solid, plastic-like synthetic material that is dispersed as microscopic particles in water. This dispersion is a milky-white liquid called "latex" because it is reminiscent of natural latex from the rubber tree. This latex is then mixed with pigments and other ingredients to produce "latex paint."

Several polymer types are used as binders in latex paint. The two types used most commonly in North America are 100% acrylic and vinyl-acrylic (also called PVA for polyvinyl acetate).

100% acrylic binders formulated for exterior use provide excellent performance benefits related to adhesion, water resistance and resistance to alkalinity. They are generally used in

higher quality exterior latex paints where top quality performance is required.

100% acrylic binders used in premium interior latex paints provide benefits in terms of adhesion under wet conditions, and resistance to waterborne stains, blocking, and alkaline cleaners, but the differences are not as pronounced as with exterior applications.

Properly formulated, vinyl acrylic latex binders perform adequately in interior wall paints, drywall primers, and satin/semigloss paints. Vinyl acrylics are also used in some exterior paints for reasons of economy. However, if using these, avoid application on bare masonry, to surfaces such as high gloss alkyd paint where blistering is most likely to occur, and in situations where resistance to mildew and dirt are important.

OIL-BASED BINDERS

Binders in oil-based paints are either natural or synthetic. The natural binder in an oil-based paint is made from a vegetable oil that "dries" when it is exposed to the air. Drying oils traditionally used in paints include linseed oil, tung oil and soya oil.

Today, few paints are made with oil alone. Rather, they are based on modified oils called alkyds. Made from vegetable oils and synthetic resins, alkyds are chemical compounds that dry harder and faster than oils. Nearly all "oil-based" paints now have alkyds as binders. Exterior oil-based wood primers often are made with a combination of oil and alkyds.

FILM FORMATION: OIL-BASED PAINTS

How a paint dries, forms a protective film and develops its properties differs between oil-based and latex paints. This is primarily due to the differences in their binders. The difference in binders also helps explain why oil-based and latex paints differ in long-term performance.

Film formation of oil- and alkyd-based paints is a two-step process. When an oil-based paint is applied to a surface, the liquid evaporates and leaves the binder and pigment on the surface. The oil or alkyd binder then dries, or oxidizes, as it reacts chemically with oxygen in the air.

It is this oxidation that develops the hard, tough properties of an oil or alkyd paint. Unfortunately, this reaction continues indefinitely, and over time can produce some unwanted results. For example, oxidation can cause yellowing that typically is bleached out by sunshine, but may be quite noticeable in areas not exposed to sunlight.

Other problems can occur later. The continuing oxidation process in oil-based and alkyd paints can ultimately render the

film not only hard, but also brittle. Then, when an exterior substrate expands and contracts, the paint film may crack and flake because it remains rigid. In interior situations, the paint may chip if struck by items such as furniture.

FILM FORMATION: LATEX PAINTS

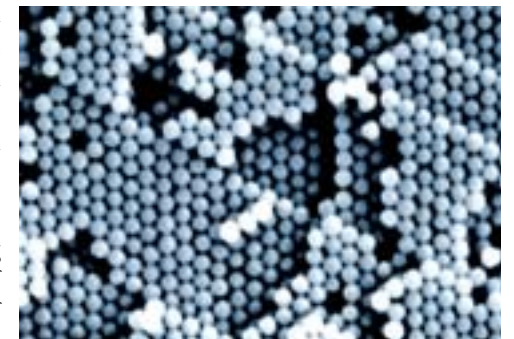
Film formation of latex paints occurs in a much different manner. As the liquid in the paint evaporates, the microscopic particles of latex binder and pigment that remain on the painted surface come closer together.

As the last vestiges of liquid evaporate, capillary action draws the binder particles together, causing them to fuse and bind the pigment into a continuous, flexible film that will be water resistant when dry. This process is called coalescence. Since no oxidation takes place — either initially or over time — the film tends to maintain its flexibility over the life of the paint job.

The film formation process also allows latex paint to retain microscopic openings that allow it to "breathe," that is, allow moisture vapor to pass through. Latex paint is thus more tolerant of moisture coming from inside the building than are oil or alkyd paints.

Oil or alkyd paints form a tighter film, and are prone to blister or lift if moisture is behind the paint.

By providing this brief description of the role the binder plays, we hope you now understand why it is such a key ingredient in a can of quality paint. In the next article in this series, we'll look at the remaining ingredients in paint: the liquid that acts as the carrier for getting the binder and pigments from the can onto the surface, and the additives that provide or enhance certain paint properties. ■



Latex binder particles are extremely small and, in some cases, highly uniform. The particles in this magnified view are only .000008 inches in diameter.

The latex film formation process has some limitations that contractors should be aware of, especially on exterior applications. See the related article on the following page that describes how application weather conditions affect latex paint performance.

THE Weather:

How Application Conditions Affect Latex Paint Performance

If it isn't already on your pre-job checklist, add this item: Check weather forecast. Why? Because the weather conditions under which you apply exterior latex paint can have a dramatic impact on performance...initial and long term.

You need, of course, to plan around predicted rain for obvious reasons. And most painters are familiar with the guidelines about painting after rain; namely, the capability of latex paints to be applied before the surface has dried 100%, and the need to apply oil-based and alkyd coatings only after the surface has thoroughly dried.

There are, however, a number of other weather-related factors that also must be taken into account, including temperature and drying time.

TEMPERATURE

As described in the article on page 8, the binder in latex paint consists of microscopic particles of polymer that need to fuse together when the paint dries to form a tough, continuous film. Improper weather conditions can interfere with this process.

For example, if the paint is applied at too low of a temperature, the binder particles may become too hard to fuse into a continuous, durable film. This is because binder particles are thermoplastic, meaning they tend to get harder at lower temperatures, and vice versa.

This is the main reason why paint manufacturers specify a minimum application temperature (typically 50°F) for latex products, and why it is essential that you only apply the paint at or above the minimum for that product. Ideally, you should not apply the paint unless the temperature is predicted to stay above that minimum for the next 36 hours.

Remember, too, that the minimum recommended temperature refers not just to the air temperature, but also the temperature of the surface being painted. This is particularly important for the north side of a home or building, which gets less sun than other sides. The surfaces there may be colder than the air temperature, particularly early in the day.

Failure to follow these guidelines can cut years off the life of a paint job. Incomplete film formation, for example, can result in a paint film that fails by cracking or flaking in just a few years or less. ■



THE "PERFECT" DAY TO APPLY EXTERIOR LATEX PAINT			
Temperature	Relative Humidity	Wind	Sky
Between 60°F and 85°F	Between 20% and 80%	Little or no wind	Slightly overcast (no direct sun)

DRYING TIME

Film formation and durability can also be affected if latex paint dries too quickly. That's because fusion or coalescence of the latex binder takes some time to occur properly. Very quick drying can reduce the mobility of the particles before the film is adequately formed. Conditions that make latex paints dry too quickly can thus compromise film formation, even though the paint may look fine.

SURFACTANT LEACHING

Another situation influenced by the weather conditions under which a latex paint is applied and dries is a phenomenon known as surfactant leaching.

Also called streak staining, water-spotting, and weeping, surfactant leaching refers to a concentration of waterborne ingredients on the surface of a latex paint that creates a blotchy appearance, often with a tan or brownish cast.

While surfactant leaching usually has no adverse effect on the long-term durability of paint, it can temporarily affect the appearance of a job before it naturally weathers off in a month or two. Because it can impact a job, you should understand its causes to help avoid its occurrence.

All exterior latex paints contain some waterborne ingredients, such as glycols, surfactants and thickeners. All of these eventually come out of the paint film as it weathers, usually over the first several weeks of exposure.

However, if the paint is applied in cool, humid conditions that retard drying, a large proportion of these ingredients can migrate to the surface of the paint as it dries, or shortly thereafter. There they typically appear as shiny streaks or blotches.

To minimize the possibility of surfactant leaching, avoid painting late in the day, especially in the spring and fall when cool, damp conditions are expected in the evening or overnight. Also, avoid painting just before it rains.

Remove Carefully

While surfactant leaching will normally weather off, you may find that immediate attention is required. If so, keep in mind that for the first few days, the resistance properties of the paint will not yet be fully developed. As a result, any immediate cleaning must be done carefully and with plain water. Careful hand cleaning with a sponge is sometimes effective.

Power washing in the early days of the job may remove the paint and should not be used. Power washing (use plain water) can be considered after a week's dry, but even then, proceed carefully and test inconspicuous areas first to be sure the integrity of the paint isn't affected. Immediate repainting is an uncertain solution, since any remaining surfactant leaching may interfere with adhesion of the new paint.

Conditions that contribute to overly fast drying of exterior latex paint include:

- Painting when the temperature is too high. Avoid painting in temperatures over 95°F.
- Painting in direct sunshine. Even on a moderate day, it is best to avoid painting in direct sunshine because surface temperatures can be 10 to 20 degrees higher than the air temperature. And the paint itself can be heated by direct sunshine, especially if it is a dark color. To avoid this, work your way around the house or building so that you are always painting in the shade, especially in the warmer afternoon hours. As a bonus, you'll be more comfortable working this way. Where this can't be done, try to paint these areas in the early hours of the day.

• Painting in dry and/or windy weather. Even light wind can cause latex paint to dry very quickly, contributing to inadequate film formation. This effect is compounded when the relative humidity is low, below 20%.

• Painting a very porous surface that absorbs the water from the coating. If painting porous masonry, apply a sealer first. Or, if using a 100% acrylic paint, dampen the masonry just prior to painting. This will retard the drying process.

If possible, avoid painting when more than one of these conditions that could excessively speed drying is present. Only in that way will your customer benefit from the full protective capability of the paint.

CONTRACTORS

The Paint Quality Institute's website, www.paintquality.com, receives numerous questions on the subject of paint from consumers, retailers – and even contractors. Some of the contractors' questions are basic, some advanced, and some especially interesting. Here's a representative sampling of those questions, along with their answers.

APPLYING SEMIGLOSS

Q. What's the best way to apply a semigloss paint to a smooth surface?

A. First, sand the surface with fine (#220 grit) sandpaper to dull the surface. This will enhance adhesion of the new paint and help it go on more easily.

Next, apply a latex universal primer, using a quality roller with a 1/4" synthetic nap roller.

Finally, if applying a latex semigloss, pre-dampen the brush or roller with water, then remove as much water as possible by shaking or with a paper towel. If rolling, use the same type of 1/4" synthetic nap roller as you used for the primer.



RHEOLOGY MODIFIERS

Q. I'm hearing a lot about something called rheology modifiers. What are they and what do they do?

A. Rheology modifiers are synthetic thickeners used in high quality latex paints to improve flow and leveling. Most conventionally modified latex paints use cellulosic thickeners. In addition to enhancing flow and leveling, rheology modifiers also provide better film build that, in turn, improves hiding and durability.

Quality interior paints that contain rheology modifiers also have excellent spatter resistance. And, because the additives are synthetic, paints made with rheology modifiers are more resistant to spoilage than those made with traditional thickeners. More and more, paint manufacturers are using rheology modifiers in their high quality paints.

TEXTURED CEILING

Q. I have a customer with a blown-in, textured ceiling. What type of roller and paint should I use?

A. If the ceiling has any discoloration in any areas, vacuum the ceiling with a brush nozzle, then apply a latex stain-blocking primer that is recommended for interior use. Use a quality half-inch synthetic nap roller cover. Keep at least two windows open while applying the primer and while it dries. Allow it to dry overnight. Then apply a dead flat latex wall paint using the same type roller cover.

TOBACCO SMOKE BUILDUP

Q. What can I do to get tobacco smoke buildup off a painted wall before repainting?

A. You should be able to scrub a good bit of it off with a TSP solution in warm water and a stiff scrub brush, followed by a thorough rinsing. Then apply a heavy coat of a latex stain-blocking primer. Apply with a quality 3/8" nap roller; allow to dry several hours; apply a second coat of primer, then allow to dry overnight. Then apply a top quality interior latex paint.



Have Questions, Too

REJUVENATING LATEX ENAMEL

Q. Can latex enamel be rejuvenated? I have 20 gallons that were stored in an unheated building. I think the paint froze and has now separated. Should I drain off the liquid, and what can I put in it when I re-mix it?

A. You may be able to reclaim the paint. Open each container and do the following:

Do not pour off the liquid. This should be kept as part of the paint. Next, look for any signs of rust or deterioration of the containers. If you see contamination of the paint, discard the entire container.



Remove any skins or hard pieces by straining. Leave soft lumps in place. Now, stir the paint in the containers thoroughly for 5 - 10 minutes. If, after stirring, the paint seems smooth, uniform, and free of specks, or is not thin or runny, etc., it should be fine to use.

However, check each container first by applying some of the paint to a scrap surface and look for uniformity of gloss and color and foaming tendency. To play it safe, don't use it in a critical place like a living room.

IDENTIFYING CLEAR COATINGS

Q. How can I tell if a previous clear coating that I want to remove is shellac, varnish, lacquer, oil polyurethane or water-based urethane?

A. If it is shellac, it will soften readily if you apply a little denatured or grain alcohol to a small test area. A nitrocellulose lacquer will soften and come off easily if some lacquer thinner is applied to a test area.

Oil-based (alkyd) polyurethanes will have a yellow or amber cast, will not be affected by alcohol, and will take at least a few minutes to be softened by lacquer thinner. Water-based urethanes have a somewhat "oily" feel, and most of these are quite clear with no yellow or amber cast. Varnish is simply a general term applied to any of these clear coatings.

If you have a question, visit the PQI website at www.paintquality.com. Once there, click on the FAQ icon. Then, choose an interior or exterior painting topic, and a list of common questions and answers will appear. Or, you can ask your own question.



OIL SOFTENING

Q. I've heard of a problem called "oil softening." What exactly is it?

A. Some enamels, including both alkyd and latex, are subject to softening by an accumulation of oils that come from hands that repeatedly touch it. This results in painted areas that are faded and easily marred. It is often seen on banisters and railings, on doors around the doorknob, and on walls around light switches, where handprints are commonplace.

If you encounter this situation, repair the area by removing all softened paint by scraping, being careful not to mar the surface. Then sand with fine grit (#220) sandpaper. Wash the area down and rinse. Then apply a quality latex interior stain-blocking primer to the entire area. Apply either a gloss latex enamel that resists oil-softening (check product data sheet) or a top line interior latex semigloss enamel. Most top quality semigloss latex paints have good oil-softening resistance.

SPRAY PAINTING

Fast, Versatile and Tricky Here's Some Basic Background Info and Application Tips for the Apprentice Painter

Paint sprayers have been popular application tools for professional painters for more than a century. The reasons are simple:

- 1) Their application speed and subsequent potential for reducing labor costs. It has been estimated that spraying can be as much as four times faster than brushing and twice as fast as rolling.
- 2) Their versatility. Spray painting can be used to paint objects of varying geometry and materials, from flat wall and ceiling surfaces to highly profiled surfaces of wood, masonry and metal.
- 3) The appearance of the finished job. Because the coating can be applied heavily and does not show brush marks or roller stipple, spray painting provides a very uniform appearance, an important advantage, especially for interior work.

However, spray painting is also a complex system, and every contractor who uses it should follow the manufacturer's recommendations on the proper use of its equipment.

Guidelines concerning paint thinning and application techniques are equally important in attaining a good job. Here are some of those guidelines for three major types of spray painting: conventional, airless and high volume low pressure (HVLP).

CONVENTIONAL SPRAYING

Conventional spraying uses compressed air to create the turbulence necessary for atomization and to propel the paint to the surface. Paint droplets form when a fast moving flow of air collides with a stream of paint.

The design of the spray gun nozzle determines the spray pattern of the droplets and also directs the paint toward the surface. Atomization takes place either in the spray gun or immediately outside the spray tip depending on the design. Conventional spraying remains popular because of the control it offers and the quality of finish it delivers.

PAINT THINNING

Conventional spraying equipment can apply many types of paint, from thin lacquers to relatively heavy coatings. However, it sometimes requires adjusting the viscosity or thickness of the paint. This is typically done by diluting it with an appropriate liquid.



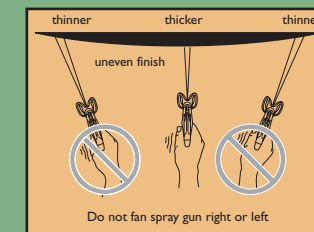
Spraying offers efficiency when coating most large surfaces, such as decking.

An important concern here is the effect of dilution on the application properties and performance of the paint. For example, paint coverage, as measured by dry paint film thickness, will be reduced for a given spread rate (wet film thickness) because dilution reduces the volume of solids of the paint.

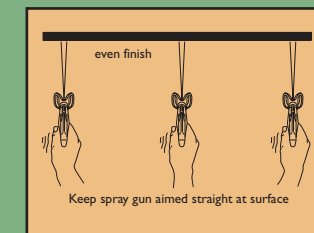


CONVENTIONAL SPRAYING TECHNIQUES

The most common mistake made with a conventional spray system, as well as with the other methods, is arcing the gun while spraying. Arcing results when the wrist is kept rigid while the arm pivots at the elbow. This creates an uneven coating that is heavy in the middle of the pass and thin at the ends.



To prevent arcing, keep your wrist and arm rigid, and keep the spray gun parallel and at a right angle to the surface, at a distance of about 6 to 12 inches from the surface. Holding the gun closer deposits more paint on the surface (which may result in sags and runs) and produces a narrow spray pattern. Holding it farther from the surface results in a thin coat, greater overspray and a wide spray pattern.

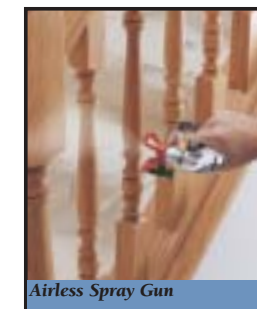


Also, start your stroke before you pull the trigger, and continue it after releasing the trigger. If you don't, there will be heavy spots of paint where you start and stop. Reverse your stroke direction and apply the return stroke in the same manner.

Moving the gun at a constant speed results in even coverage. The correct spraying speed allows for a full wet coat of paint without runs or sags. Overlap the edges of each spray stroke to get a uniform coating without streaks or thin spots.

AIRLESS SPRAYING

An airless spray gun looks like a conventional spray gun except there is only one hose connected to it...the paint supply hose. There is no air supply hose. The size and shape of the orifice in the spray nozzle controls the application of paint. Forcing the paint through this small opening creates the atomization effect.



Airless Spray Gun

Airless spraying offers production speed nearly double that of conventional spraying. It is also more efficient because of reduced overspray, greater portability and easier cleanup. It is a good choice for large areas not requiring a fine finish, but usually not a good choice for small or confined areas because of the high pressure and distance from the surface needed to get good application.

Dilution may also interfere with the balance of paint properties. This is because paint manufacturers optimize their formulations using a precise amount of pigment, binder, liquid and additives.

Additives (ingredients present at relatively low levels), in particular, are designed to function optimally when present at a certain proportion in the paint. Too much dilution could throw this proportion out of balance. That's why many paint manufacturers often do not include dilution on their spraying application instructions, or list only a nominal amount such as 1/2 pint of liquid per gallon of paint.

Using the INTERNET As a Marketing Resource

PAINT THINNING

When used in an airless system, paints generally do not require adjustments in viscosity because application pressure is so high.

AIRLESS SPRAYING TECHNIQUES

Airless spraying techniques are similar to those of conventional spraying, with the following exceptions:

1) Because of the higher pressure involved, maintain a distance of about 12" to 14" from the spray gun to the surface rather than the 6" to 12" for conventional spraying.

2) Unlike conventional spraying, which allows you to vary the paint flow, an airless system may have only two settings: on and off, which can make it more difficult to control the paint flow. As a result, it is important to move the gun at a comfortable speed that provides proper coverage. Some airless units do have an adjustable spray rate, which can be helpful. For example, increasing the spray pressure can eliminate unevenness, or "trailing," at the lower part of the spray pattern.

If you find yourself moving the gun too quickly in order to prevent excess paint buildup, lower the pressure or use a tip with a smaller orifice. If you find yourself moving it too slowly in order to get a good coating, raise the pressure or use a tip with a larger orifice.

HVLP SPRAYING

High volume low pressure (HVLP) refers to systems that use a high volume of air that flows to various compartments in the spray gun. Some of the air pushes paint up the fluid tube into the nozzle. Another stream of air goes out through the nozzle and meets the paint, atomizing it at very low pressure and creating a very soft spray that provides a fine



SPRAY SAFELY!
The fine mist formed by spraying can enshroud the operator in a fog of paint. The need for personal protective equipment, therefore, is very important. Whenever spray painting, always review the pertinent material safety data sheet in order to identify proper personal protection equipment such as an approved respirator, safety goggles and gloves.



HVLP Spray Gun

When spray painting, follow the manufacturer's recommendations on the proper use of its equipment.

finish and minimal overspray.

Because more of the paint reaches the surface, HVLP is very well suited for interior applications; for working in small, confined areas; and for painting trim, doors, frames, cabinets, shutters and other surfaces that require a fine finish.

PAINT THINNING

When initially introduced, HVLP systems were more suitable for thin coatings such as varnishes, but manufacturers have since developed increasingly more powerful machines so that the range of paints has now expanded. However, some HVLP units still may not be able to handle heavy paints such as some latex or high solids coatings without thinning.

Unfortunately, thinning can result in a lower dry film thickness and reduced hiding that could require multiple coats, so production suffers. In addition, there is the concern that paint properties could be compromised.

HVLP SPRAYING TECHNIQUES

HVLP spraying techniques are similar to those of conventional spraying such as holding the gun about 6 to 8 inches from the surface and overlapping the sprayed areas. The application speed of HVLP is as fast as or faster than conventional spraying.

Compared to an airless system, however, HVLP is much slower. That's why it is typically not used for large, flat areas. To adjust application speed, change the nozzle size. Remember, the larger the nozzle, the faster the application.

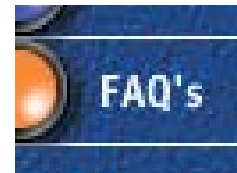
As you can see, a large number of factors impact on spray applications. As a professional painter, it is imperative that you master all these factors through consultation with the equipment supplier, with the paint manufacturer and through your own personal experience. This will be important as you strive to maximize your productivity as well as your reputation for quality painting. ■

Photos for this article courtesy of Graco Inc.

Much has been said and written about the wealth of helpful information on the Internet, but all-too-many professional painters are making less than full use of it. That's a shame, because the Internet can be the painting contractor's best friend when it comes to marketing assistance.

The Web is full of helpful domains offering everything from technical information on paints and coatings to market research, free sales aides and even special opportunities to promote one's own painting business.

Take PQI's own Website, for example—www.paintquality.com. It has loads of useful information, including an entire section devoted to the special needs of the professional painter.



Handy Q&A

"FAQs," which can be accessed directly from the paintquality.com home page, has an encyclopedia of questions and expert answers. This section can not only save time, money and trouble for the painting contractor, but it can also be used to help convince customers what type of paints and coatings should be used in a particular situation. And there is a link there to submit your own question to our experts. The "FAQs" link can be accessed directly from the home page. (The "Problem Solver" in the Contractor section of the Website can be used in much the same way.)

Sales and Marketing Aids

The Contractor portion of paintquality.com contains a full menu of special interest to professional painters. For example, there's a link that provides access to market research with homeowners and contractors (go to "Market Trends").



Another link is titled "Selling Your Services." There, painting contractors can find professionally prepared and designed "sell sheets" that can easily be downloaded and used in ads, direct mailers and sales presentations. Topics include "Elastomeric



Wall Coatings," "Painting Vinyl Siding," "Painting Aluminum Siding," "Interior Priming," "Exterior Priming," "Treating Mildew" and "Top Quality Paint as an Upgrade in New Construction."

Each of these sell sheets describes the benefits of doing the job in question. For example, the one on EWCs describes such benefits as crack bridging, moisture resistance, and other important features—which help make a compelling presentation to a prospect.

Contests for Recognition

Internet sites also present great opportunities for professional painters to showcase—and then promote—their own work. On paintquality.com, for example, there is information about PQI's "America's Interiors" contest.

This competition, which will run through December 2001, is a great way for contractors to have photos of their best interior paint jobs posted on the Web, where they'll be seen by thousands of people. Of course, marketing-savvy contractors will not only enter the contest, but direct their customers to visit the site as well. ■

