parodi on paperhanging

Hanging the Ampersands

by Jim Parodi

I have been getting one or two phone calls a week from consumers, who have had their high-end wallpaper job botched in some way. A recent trip to estimate a redo in Manhattan revealed a botched job of breathtaking proportions. If the perpetrators had known only a few simple techniques and tips, they could have avoided this mess.

All of us want to avoid messing up the high end. Sales statistics of wallpaper from last year show that there are two "healthy" (read "not decimated") areas of wallpaper these days: commercial and the higher end. If you are one of those hangers who feels beyond your depth when asked to hang one of those high end materials this *parodi on paperhanging* is for you.

First of all, what is the high end I'm talking about? Paperhangers across the nation are seeing an uptick in rollage from companies whose names have that funny little symbol "&"—- the ampersand. There's Cole & Son, Brunschwig & Fils, Cowtan & Tout, Osborne & Little, Farrow & Ball, as well as some non-ampersands like Zoffany, Sanderson, and Wm. Morris.

> You can ruin them with surface staining. You can ruin them with wet staining or "strike through." You can ruin them with dry staining, which occurs long after the material is installed.

These materials are devoid of vinyl and instead have a traditional pulpy paper background, which, like the "quicker picker upper," stands ready to absorb and show any contaminant staining.

Madison Avenue has spent billions to convince consumers to go faint with horror at any sign of "ring around the collar" or "underarm stain," so they sure don't want to see it on their wallpaper.

Many of the ampersands spell out in their instructions the need for hanging a blankstock underlayment to avoid staining. You will serve your own interests well to follow those instructions. Even if they don't spell it out it is good to use blankstock with any pulp. But don't get complacent, because blankstock is not enough.

How, exactly, can one go wrong when hanging these materials over a blankstock paper?

It has to do with the paste. You actually get three opportunities to ruin these types of jobs with paste staining. You can ruin them with surface staining. You can ruin them with wet staining or "strike through." You can ruin them with dry staining, which occurs long after the material is installed.

The good news is that carefully choosing your paste can eliminate this trifecta of disaster.

Close the lid on pre-mixed

The first thing you must do to avoid these three types of staining is to close the lid of your five gallon pre-mixed adhesive and open a package of powdered starch adhesive instead.

Fifty years ago that would not have been a problem since all there was in the paint store was powdered adhesive. Then in the late 1960s, with the advent of thick paperbacked vinyl and metallic foils, a trend toward pre-mixed adhesives began that eventually took over the entire adhesive market. Almost, that is. You can still acquire powdered adhesives and I will provide a resource guide later in the column.

But why not use pre-mixed on pulpy paper-papers? And why is it meaningless pap when a premixed clear claims to be "non-staining"?

All pre-mixed wallcovering adhesives use modified vegetable starch. In the USA, the vegetable starch of choice is corn starch due to its low price. (By the way, plans for ethanol production for use in gasoline may send prices rising in the coming years as supplies are stretched.)

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Starch is modified to alter and stabilize its viscosity so that it flows predictably in the machines of all sorts of food and industrial applications. The modification process involves cooking the starch and later employing acids to break down the polymer chains to reduce average molecular weight. (Stick with this-it will be over soon.)

When the corn starch is cooked, the starch granules break down to release the lipid content (corn oil) which is separated and later used by the Colonel to make fried chicken. Manufacturers remove what oil they can — the Colonel pays good money for that oil — but small amounts of oil remain in the starch. How much oil is present varies with the type of corn and the processing equipment used. After this process, long starch polymers get broken down by acids, which render them more susceptible to enzymatic browning reactions, which can later make them... uh...brown. Hence the clear paste

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that turns brown six months later when the paperhanger doesn't wipe the sheets with clean water. Into your five gallon bucket also is added sodium nitrate, a salt that acts as a product preservative.

Let me stop here and thank the "starch folks" I spoke with from Penford Industries, Kalamazoo Paper Chemicals, Rochester Institute of Technology and particularly Bob Kearney, manager of product development at Western Polymer. Bob, a forty year veteran of the starch biz, pointed out that what should be of concern to paperhangers is that lower lipid starches like potato or tapioca are the best bonding starches. Fat or grease gets in the way of adhesion to any surface.

So let's say you get invited to dinner to meet your new girlfriend's parents and you, being the sloppy eater you are, get corn oil, preservative salts, and embrowning starch polymers on their nice white linen (as well as on your tie.) At least they can throw the tablecloth in the laundry and ask their daughter to go back to match.com for a retry. With delicate pulp paper hung on the wall you can't really wash it, so the strategy is to avoid these types of contaminants in the first place. To do that, you should use either powdered wheat paste or powdered potato paste. Personally I have come to use potato starch paste over the past few years because I like its "body," it has pretty good tack for a powdered paste as well as overall adhesion, it flows well in a pasting machine if a machine can be used, and mixes very easily without me having to get a face full of dust when I pour the bag in the bucket.

Don't overlook the quality of the water that goes into the bucket before you pour the powdered paste. There are all sorts of minerals lurking in tap water whether that water comes from the town or a well.

Speaking of contaminants, don't overlook the quality of the water that goes into the bucket before you pour the powdered paste. There are all sorts of minerals lurking in tap water whether that water comes from the town or a well. A common offender for staining is iron, yet water quality in the USA runs the gamut from calcium to copper to sulphur and other assorted funk when you turn on the faucet. Whenever I am hanging the high end I visit the supermarket beforehand to get $5 worth of distilled water as "mineral insurance." I also suggest you keep a small Britta filter in the truck in case you get blindsided the customer's choice of paper and get caught without pure water.

Powdered beats pre-mixed 3-0

So let's see how the powdered starches solve the problems of high-end pulp staining:

Surface Staining — You may have noticed that many pre-mixed clears are slimy and sticky. When they get

on the surface of a pulp paper most of them cling and are *much* harder to get off completely than any powdered paste. The trouble is that after everything dries you may find out you got premixed clear on the surface and by then it's too late. Another characteristic of the high end is the matte inks which are often easily burnished (made shiny) by robust wiping. With these materials you should keep wiping to a minimum.

As a side note, be aware that the matte inked surfaces should not come into contact with plastic or metal smoothers. Traditionally a short bristled sweep is recommended. Personally, I prefer a plastic smoother to be certain there are no bubbles, so here's a foolproof tip if you want to use a smoother instead of a brush: Cut a 2'x 2' piece from a scrap roll of pulp, hold the scrap piece pattern side against the long sheet you're installing and then use the smoother on the back of the scrap as you reposition the scrap each time you need to smooth. This solves the problem of hard plastic burnishing of ink by "dragging" as well as the other problem of the smoother pressing adhesive into the porous surface if it picks up any stray paste.

An added precaution is to "paste size" the blankstock and let it dry completely before hanging the pattern paper. This makes for an even thirstier wall...

Wet Staining or Strikethrough — When you paste these materials they should be done by hand with either a brush or roller. (A machine may be used for a large job, but be darn sure the material is free of "cornrows" when dry before proceeding on the project.) When pulps get wet they darken or "blush." This is normal. If you have followed the preceding steps outlined above and used a powdered adhesive with sparkling clean water, those blush marks will lighten when the paper dries and the paper will not show any watermarks. If you hung blankstock as you should have, the blanstock will help to absorb water and counteract any possible wet staining. An added precaution is to "paste size" the blankstock and let it dry completely before hanging the pattern paper. This makes for an even thirstier wall so that the paste moisture starts to travel away from your sheet almost immediately upon contact.

Dry Staining — Several years ago, I was tipped off by by the NGPP's Chris Murphy in Atlanta to some supposedly "non-staining" premixeds causing dry staining. He referred to it as "parchmentization" whereby a uniformly cream-colored ground paper, over time, starts looking as mottled as the American Constitution. Call it what you will. I call it dry staining because it appears as a greasy, bottom-of-the-pizza-box darkness several months after the job has dried out.

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mad dog

Blue Collar Advice From Mad Dog

Dear Mad Dog:

I just worked for a customer who drove me mad. Really, I mean carpet-biting mad. What started out as a pleasant experience and project, turned into a nightmare. The customer became picky about everything. The paint edges, wall patches, and caulking was just never good enough. I never realized how picky she would be about all the details. The project went way too long and I lost my shirt.

Signed,
Beaten down.

Dear Beaten Down:

First off, your customer might have been a bad dog. But, even bad dogs can be trained. That said, the first person to be trained is you. You must train yourself in how the job should be run and what to expect. Once you know what you will do, and not do, what you will expect... you then can train the customer what to expect.

Unrealized expectations can kill a job. If everyone knows what to expect and it is in writing, it is hard for you to lose control of the job and for anyone to bark at, bite, or beat you.

One major area where unrealized expectations crop up is preparation. Prep issues are normally sanding smoothness, repair and caulking. If you ask three customers to describe "smooth", or "good prep," you'll get 43 different answers.

It is your job to manage the expectations, and you do that with your contract. Within the contract, you should include hourly limits of preparation, patching, caulking, etc. A time limit clearly says how much you are responsible for. During the proposal stage, explain to the customer, "based on what you have told me, it should take about XX hours to prep these areas." Then write it into the proposal.

On the project, check in with your customer about prep hours so there are no suprises. Once the hours go over the limit, you can charge an hourly rate for the extra

time and materials. Now, the customer is not "picky" if she is paying you extra cash to do extra prep.

Good luck

Want a contract example with prep limits? Email the Mad Dog at steve@maddogprimer.com

The Mad Dog is the alter ego of Steve Ryan, a former contractor with 20 years of experience. He now produces Mad Dog Primer www.maddogprimer.com.

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I have often wondered whether this dry staining is caused by the slow movement of residual oils contained in these modified starches from the wall side through the paper. When I mentioned this hypothesis to one of my technical sources for this column he said it was a likely source, but took issue with my term "dry staining." He pointed out that no porous object existing in Earth's atmosphere is really "dry." There is always a percentage of moisture in the ambient atmosphere affecting the material. He suggested that in addition to residual oils in premixed pastes, corn starch pigmentation may actually be leeching through the pulp in the constant presence of this household "background moisture" level.

I made samples of pulp paper smeared with different adhesives in 2003 and let them age. Whatever the cause of this long term staining, the pulp smeared with a popular "non-staining" premixed showed dry staining in only a few months and is now faring very badly. The samples from 2003 with powdered adhesives are splendidly free of the dreaded parchmentization. More good news is that the samples which I mixed 2:1 potato/premixed or even 50/50 potato/premixed don't exhibit any dry staining. This mean that for those pulps which curl or "cup" due to heavy inking, you can boost paste tack a little by adding some premixed to your powdered paste-even clay.

So next time you're hanging a Cole & Son, Cowtan & Tout, or Farrow & Ball, take your time, use these proper practices, and don't forget to Chargem & Howe.

Where to get those adhesives:

For potato starch call Roos International 800-888-2776 or go to http://www.roosintl.com and click on "Ecofix." This is Swedish potato starch. Why doesn't the USA produce potato starch wallcovering adhesive? U.S. producers make five times the profit with potato starch for food products as opposed to potato starch for industrial uses. European governments heavily subsidize potato starch, so we get some advantage on the price thanks to those European taxpayers. Score one for the Americans.

The whitest, fluffiest powdered wheat paste I have seen comes from www.paper-hangings.com (don't forget the hyhen).

Jim Parodi is a second-generation paperhanger based in Cornwall-on-Hudson, NY. An NGPP member since 1987, he also is a member of The Bergen County Mastercraftsman Paint and Paper Association in the suburbs of New York City. His penetrating commentary on all aspects of the wallcovering industry regularly graces the pages of PWC.