

Paint Dealer Education, Part 3

Why should you care about how your exterior products are used?

Part Three of Three

The paint bone's connected to the...sky bone

We all know that the knee bone is connected to the thigh bone. And some say that we're all connected to *one another* – or that everything is connected to everything else. So could the exterior finishes you sell become connected with the weather? Could the exterior wood-finishing protocols you suggest be partly

responsible for the health of an as yet-unborn child in a foreign country? New-age, sci-fi drivel?

Human-induced global warming can be partially controllable, but it will take a concerted effort by all of us to reduce energy consumption, especially via the release of carbon dioxide (which mostly occurs through auto exhaust). Trees and the forest soils they inhabit act as “sinks” for the sequestration of the carbon that increases heat in the atmosphere.

In the US, the forestry and wood products industry is actually the fourth largest sector of the economy,

with our construction industry being the primary end-user.

America's forests have rebounded over the course of the past decade as second-growth forests repopulate grazing land, but this may also be due in part to the increasing use of imported wood products. Regardless, a primary objective for anyone in our industry who has a relationship with wood as an installed product should be a stewardly maximization of its life span. For that matter, any wood structure owner, be it a homeowner or business owner, should be educated accordingly. Exterior wood easily has the capacity to last 100 years and probably even much longer.

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Mike Fallarino

I believe that the superlative coatings technology we have now can and should be exploited to hit this target. Just as the cars of a few decades ago needed frequent tune-ups but today's cars can go 100,000 miles without one, we could coat our wood products to weather handsomely for – *dare I say 20 years* – before they need to be recoated? Since I have good-looking work in the field that is now passing the 12 year mark, I don't think the idea is far-fetched.

Most current recommendations regarding the finishing of exterior wood suggest a coat of primer and two topcoats to create a targeted coating system life span of 10 years. Certainly a three-coat system is the minimum that any exterior wood should receive. But my own experiments with a four-coat (and sometime a five-coat) system have been surprisingly pleasing. You might think that the installation of a fourth coat would create only the most negligible visual effect on the end product, but such is not the case. The extra coat is not paint, it's primer.

In fact, while speaking recently with Charles Jordain, VP of the California Redwoods Association and past chair of the Joint Coatings/Forest Products Committee, he intimated that the industry may be moving toward just that kind of recommendation.

The superior difference in the end

product, I believe (and some government sponsored tests have demonstrated), is achieved by using two different types of primers.

In my own field work I've blended my own first coat primer using very different oil-base products from two different companies because I'm shooting for some specific performance characteristics from *that* coat. That's followed with a latex primer, then two latex topcoats.

When I do stepping or decks with solid colors I usually adhere to this protocol then follow these four coats with a clear coat to reinforce the whole system. My own assessment is that the single most important step that anyone can undertake to maximize the service life of exterior wood is to first prime it on six sides with a deep-penetrating, slow drying exterior breathable oil and follow the installation with a coat of acrylic primer.

Here's a summary of parts one and two of this series and an overview of US government exterior wood finishing protocols:

- Exterior wood represents a substantial form of energy, and efforts to insure its longevity on structures should be maximized.
- The wood used in today's construction is more juvenile than that of just 20 years ago.
- Wood quality is decreasing and hybrid wood products and imported wood are increasing.
- Most current recommendations for exterior finishing are obsolete.
- The future of finish and wood product compatibility and education rests upon manufacturers and suppliers.
- Generally speaking, the notion that exterior wood – particularly bevel siding – contains a “mill or planer glaze” (i.e. a burnished, difficult-for-coatings-to-penetrate surface) is a myth.
- UV radiation will damage unprotected exterior wood in less than one week.
- Wood that's been exposed for over two weeks should be sanded to exfoliate damage to the surface.
- Solid color stains can peel and may not have the film integrity to withstand dimensional changes in exterior wood.
- Assuming the primer has stain-blocking power, all-latex systems have proven to be the most resilient coatings, and are recommended for use in three-coat systems.

CONCLUSIONS

Wood remains a plentiful resource, a good value, and a preferred building material, but its use must be marshalled wisely. Wise use is almost exclusively determined by and dependent upon coatings protocols, and in a best case scenario wood use (rather than non-wood alternatives) may conserve energy.

As wood quality declines and demand for wood increases, it is imperative that new coatings products be developed and precisely installed to maximize the service life of wood. This will result in a greater sequestration of carbon as well as lower energy use via unnecessary labor and manufacturing expenditures in the harvesting-milling-transporting-reselling-installing-finishing-and subsequent recoating sequence.

Motivated coatingsheads can indulge in research and opinions at the USDA Forest Products Laboratory, www.fpl.fs.fed.us, or John Leeke's collection of Joint Coatings articles at www.historichomeworks.com/hhw/library/coatings/articles.html.

Michael Fallarino has over two decades of full-time experience as a contractor and finisher, and over double that as an inquiring mind who wants to know. You can download samples of his book *Contemporary Relationships between Wood & Finish* at www.woodandfinish.com.

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