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# Letters

## Instant Old Age

To the Editor:

I've been engaged lately in extensive English Tudor exteriors, involving much copper trim and finish, gutters, conductors, valleys scuppers, etc. Can you recommend someone who makes an application to accelerate the 20-year patina aging process? I've been told there is a chemical, which when brushed or sprayed, will produce that even patina finish in 2 to 3 weeks.

Joseph McGrath  
Holliston, Mass.

*According to Paul Anderson at the Copper Development Association, the natural patina process in copper takes from 7 to 15 years depending largely on the type and level of impurities in the air. There are three different chemical treatments that will accelerate the patina process. Each treatment gives a somewhat different hue, and none is recommended for large surface such as an entire roof, since it is difficult to achieve uniformity. With each treatment, good prep work is critical, and temperature and humidity will also affect the outcome. It is, in Anderson's words, an "art form."*

*The three treatments are detailed in the Application Data Sheet How to Apply Statuary and Patina Finishes #145/0, available for \$2 from Copper Development Association, Box 1840, Greenwich Office Park 2, Greenwich, CT 06836; 203/625-8210.*

—Editor

## No Need for Ice-Dams

To the Editor:

The "answer" to the two questions in the August 1987 edition concerning ice damming was simply an explanation of the culprit.

Ice dams are caused by any combination of a number of factors, most commonly:

- 1) Lack of insulation at the roof/wall joint.
- 2) Inadequate sealing of penetrations in the roof/wall area.
- 3) Inadequate sealing of penetrations in the ceiling.

Any of these can allow enough heat to travel to the underside of the roof sheathing to melt snow and ice. Good solar gain can also cause the exterior of the roof to heat up sufficiently to melt snow and ice.

The overhang area will typically be cool enough then to start the crystallization of the water as this area generally experiences none of the escaping heat.

Even if the insulation is adequate and penetrations are sealed, the combination of solar heating of the roof exterior and "wind washing" through the insulation at the roof/wall joint can cause localized cooling which will also give you the two elements for a potential ice dam.

In attics with normal amounts of insulation (under R-30) proper ventilation will keep the entire roof surface close to the outside temperature which will prevent ice damming.

If the attic space has been superinsulated, however, then ventilation is not advisable as not enough heat escapes through the ceiling assembly to make the ventilation work. Assuming that the interior moisture has been sealed into the interior spaces, that only diffusion is at work, and that no wind washing takes place, no problems will result and the roof will not ice dam.

One additional point—I do not agree with Alex Wilson when he said "you should expect ice damming on all roof orientations, and plan for it accordingly."

Design out the cause—don't plan to have the resulting ice dams.

Of the sixty structures I have built, I have never had an ice dam problem despite the vast number of styles used.

No one else need use designs that permit an ice dam potential either if they understand the physical mechanisms at work and pay close enough attention to the details during construction.

Bruce Austin  
Pelham, Mass.

## Warning About Wood-Warnings

To the Editor:

Lewis Lorini, in his article on "Pressure-Treated Dangers" (*NEB* 9/87) mentions the voluntary consumer awareness program by the PT wood industry. I have enclosed a brochure from Koppers which was a free handout at a local lumberyard. The brochure compares common "misconceptions" with "facts." Number seven is a good typical example:

"Misconception: Treated wood can't be used around food or water. Fact: . . . studies indicate that the . . . treated wood may be suitable for food contact, but is not yet approved by the FDA for that use."

Voluntary? Yes. Free? Yes. Accurate? Well, did they say it had to be accurate too?

Bob Irving  
R.H. Irving Co.  
Salisbury, N.H.

## Tyvek Typos

To the Editor:

Alex Wilson's article "Wrap Wars," (*NEB* 8/87) lists Tyvek at 17.6 for air porosity, according to DuPont literature. If you refer, however, to BOCA report #79-34, it shows only a 7.6. Confusing, isn't it? DuPont has made statements that this

is due to a typographical error.

Would you let an error like this go on for 7 years?

I wanted to express my opinion since I am one of the underdogs in this war. I feel that if the author Wilson had tried every one of these products as he indicated he had used Tyvek, perhaps the article would have been less biased. I have had a few people call me with the same concerns and questions.

I think a lot of Wilson's thoughts were good, except I think there was too much emphasis placed on how easily a product tears in one's hands, not on the wall where it belongs. If that were the true test of product performance, we wouldn't be using shingles, felt paper, tiles or linoleum. Why don't you and the writer make some arrangements to give these products a real-world test and see the true performance.

Bernie Roman  
Simplex Products Division  
Adrian, Mich.

*I looked into the disparity in Gurley Porosity numbers for Tyvek while researching my article. The higher number, 17.6, which DuPont lists in its literature, is indeed correct. According to Mark Vergnano, Marketing Specialist for Tyvek, testing of Tyvek's properties was performed in 1979 by U.S. Testing of Hoboken, N.J. Data was submitted to*

*BOCA for code approval, and when they published their Research Report (BOCA #79-34), they made a typographical error, listing the Gurley Porosity to be 7.6, rather than 17.6. BOCA, according to Vergnano, will not resubmit a report unless there is new testing data, even if they were responsible for an error. The only way to correct the mistake, therefore, is to have the tests performed again and resubmit new data to BOCA. This is currently being done.*

*Regarding Mr. Roman's suggestion that I was biased in favor of Tyvek in my article, I disagree. If I had any bias at the outset, in fact, it was against DuPont, since I like to see the underdog get a boost. And I became quite frustrated with DuPont over the poor quality of their literature (in a technical sheet specifically on permeability, for example, they gave the wrong definition of a "perm"). I reached my conclusions through thorough investigation and stand behind them fully.*

*I admit that I do not have first-hand experience with air-barrier products other than Tyvek, which I've used in both new construction and remodeling since 1982. Unfortunately, neither New England Builder nor I have the resources to carry out testing of all products covered in the publication. Maybe someday. . . for now, I repeat my request for builders who have used other air barriers to write in and let us know what their experience has been.*

—Author Alex Wilson