

LETTERS



Tempered Windows Look Dirty

To the Editor:

Glass manufacturers are advertising their ability to produce large glass units with high insulation properties. I would like to share my unpleasant experience using this product in a design situation where the glass went down to the floor



Tempered glass can show a cloudy checkerboard pattern under some lighting conditions, as in this close-up looking into the unfinished house.

and required tempering (see specs below).

I had 8x8-foot and 8x12-foot insulated glass units installed in a new house. After the installation, we cleaned the glass and found a cloudy color checkerboard pattern across all the glass. The supplier of the glass says this occurs in the tempering and is within industry acceptable tolerances. It doesn't sound right to me that the glass industry is spending all this money and the result is glass that looks like "dirty" windows.

SPECS: 20 large glass panels 8x8 feet and 8x12 feet, 3/8-inch clear outside, 1/2-inch air space, 1/4-inch clear inside, low-e hardcoat, argon filled, tempered.

Condition of glass received:

- visible checkerboard pattern (cloudy color), both from top to bottom and from inside and outside the house;
- visible from 60° to 20° angle;
- very visible on bright days (even on side not in the sun);
- visible against blue sky or black background;
- only slightly noticeable on overcast day;
- looks like glass is dirty — has to be cleaned.

Suggested causes:

- distortion during tempering;
- roller marks during tempering (was tempered in horizontal oven);
- polarization;
- other.

Adam Suleiman
New York, N.Y.

According to Paul Bean, a senior scientist with hardcoat glass manufacturer Libbey Owens Ford, the checkerboard pattern described is caused by the "strain pattern created on the glass by the quench nozzles" used in the tempering process. Hundreds of such nozzles, set in a grid, douse the hot glass with air. The cool air forces stresses in the glass to strengthen it. To make the pattern less noticeable, fabricators of tempered glass move either the glass or the nozzles during the tempering process (a couple of minutes long) in order to "blend the pattern out," says Bean. The specific pattern depends on the nozzle configuration and motion.

While the pattern is always visible to some extent under polarized light or at odd angles, it should not normally be visible, according to Bean.

Harry Miles, consultant to the Glass Tempering Assoc., concurs and says that one unit may show the pattern more than others, but "it is always there."

"Even with the best, you will see the pattern under some lighting conditions," says Miles. North-facing windows can be a particular problem, he says, because the reflected light from the sky is mostly polarized.

Looking at the glass from a shallow angle (less than 30 degrees) or looking from a dark interior out into a uniform background — sky or ocean — could also highlight the pattern, says Chuck Kaplaneck of Floral Glass and Mirror, which tempers and fabricates insulated glass units.

All parties we spoke with agreed that other contributing factors are the slightly higher reflectivity of low-e glass, and the fact that both the inner and outer lites were tempered.

The relevant standard, ASTM C 1048, says such a "strain pattern...may become visible under certain light conditions," but does not tell us how much is acceptable. The best solution, therefore, would be for customers to see a sample of the material prior to purchase so they are not surprised later when the glass is installed. — The Editors

No More Freebies

To the Editor:

I could identify with the reader who sent the letter "I Knew I Was In Trouble When..." (Letters, 5/91). There was a time when I gave away more than I cared to in hopes that the client would be more appreciative of the extra effort I had put into the project. I have since learned, through motivational sales tapes, how to counteract these tactics. Now I see them coming from a distance and know to never give something away without getting something in return. For instance, [a client might say], "By the way, could you re-set my mailbox post for me?" My response: "Your mailbox post is rotting. I will install a new one for you at an affordable price."

I recently completed a lengthy restoration of a church that I also attended for more than twenty years. There were constant problems with our payment, and frequent reminders placed in the hands of the church renovation committee. When I attended church services on Sunday, the individual who was in charge of the church renovation would ignore me. I finally had to resort to taking a summons out on the church. Needless to say, I wasn't ignored any longer and I received my final payment before the case came to court. I still attend the church regularly with my head held as high as ever.

A friend of mine claims that it's better to be upset because you didn't get the job than to be upset because you did get the job.

Robert D'Angelo
East Norwich, N.Y.

Clever Bath Fan Switch

To the Editor:

Paul Turpin wondered if there was a fan-light switch which would keep the fan running after the light was turned off (Kitchen & Bath, 6/91). He needs to check out a Penn Ventilator Airminder switch. It does what he wants and doesn't require the occupant to twist the timer since the only control is a toggle switch with a built-in time delay on the fan circuit.

Dave Brook
OSU Extension Service
Energy Program
Portland, Ore.

Layout Stick Sources

To the Editor:

In the article "Fast and Accurate Wall Framing" (4/91), Don Dunkley refers to a "framing layout stick." I bought one about 15 years ago, but lost it in a house fire about 12 years ago. The store I bought it at has gone out of business, and I don't know of another store in my area that carries it. Can you tell me where to buy a new layout stick?

Victor M. Erickson
Victory Builders
Honolulu, Hawaii

Pairis Enterprises (P.O. Box 436, Walnut, CA 91789; 714/595-9312) makes three different models. One for 24-inch on-center framing sells for about \$23. The 16-inch on-center model sells for about \$25. And a combination model for both layouts sells for about \$27. — The Editors

A Day In the Life

Editor's note: This reader's description of a bad day he had on the job seemed worth sharing, if only to help you keep things in perspective when your work day seems to be spinning out of control.

On my way to work one day I narrowly missed having a bad accident when a driver ran a stop sign. It was a foreboding start to a work day.

We were converting a Chinese restaurant into a drug store. Many alterations made by a previous remodeler were either not to code or just were not good practice. One such "improvement" was a cast-iron drain pipe that ran down the middle of the basement at head height. I needed to get past the pipe to shut off the water, and thought I could do it in the dark. (Of course, there was no electricity in the basement.) Bang! That left a good lump on my head for a few days.

After running new water lines, I charged the system to find that the water heater was broken and leaking. I decided to let it drain into a floor drain 10 feet away. Later I discovered that the drain was clogged and I had a shallow pond over half of the basement. When I tried to jump over that, I landed in it and slipped, raising another lump on my shin.

A couple of hours later when I needed a tool from my van, I discovered it was unlocked and all my power tools were gone — Sawzall, circular saw, half-inch drill, sander, saber saw, and screw gun. There was no damage to the van; somebody just knew how to get into it.

I decided to move the van to a spot where I could watch it more closely — only to get into traffic and have the engine quit. The ballast resistor broke. The good news was that I had a spare; the bad news was that I had the wrong model. I walked five blocks to a car parts store only to find a clerk who didn't speak English. I'm positive he had the part; I just didn't know its Hindi name.

I walked on another mile and got the part. By the time I got the van running, it was 2 p.m. I hadn't done much work and I was feeling pretty sorry for myself. So my helper and I quit for the day.

The next morning, when I got to the job site, I found the door already unlocked, so I walked right in — only to find the painter and the telephone installer hugging each other! Now, I've lived in New York City for 20 years, but I still get surprised by some things. Once again, however, things were not as they appeared.

The painter had just had an epileptic seizure, kicked the full gallon of paint over (on my new tile

floor), and had just stood up. The telephone man was just trying to help.

They took the painter away in an ambulance. I saw him a week or so afterward. He said he wished he had a broken leg because that would heal. Instead, he'll be on medication for the rest of his life that may, or may not, work.

I realized that my little bumps were nothing and that my tools could be replaced. Seeing someone like this painter made me realize how lucky I was that I had my health. That's more important than the occasional "bad day"!

J.R. Mann
Merrick, N.Y.

Stainless-Steel Suppliers

The listing of suppliers of stainless-steel screws mentioned in "For What It's Worth," (7/91) included Sea Sure Nail (P.O. Box 669, Allenwood NJ 08720; 800/542-1979. The company's current name is Manasquan Premium Fasteners, which sells stainless-steel screws manufactured by Swan Secure Products.

Keep'em coming... We welcome letters, but they must be signed and include the writer's address. *The Journal of Light Construction* reserves the right to edit for grammar, length, and clarity. Mail letters to JLC, RR#2, Box 146, Richmond, VT 05477.