

Q Does the code in all parts of the country require tempered glass for a window seat?

A Glenn Mathewson, code educator and consultant from Colorado (buildingcodecollege.com), responds: Code questions like this can be tricky because the answer can vary with individual jurisdictions. While the International Code Council (ICC) does publish a standard for residential construction, it's still up to each individual AHJ (authority having jurisdiction) to choose what model code to reference and whether to amend it. Whenever you have any doubt about a local code issue, the foolproof solution is to talk to your local authorities.

According to the 2018 International Residential Code (IRC), the easy answer to this question is “no.” Code does not require tempered glass for a window seat, but that doesn’t mean that tempered glass in this situation isn’t a good idea. Code standards are often mistakenly thought of as the best standards, even though building code requirements are actually the “minimum standard.” Meeting the code could be A-plus work, but it could also be D-minus, a mere passing grade and probably not something to brag about.

As far as the IRC is concerned, tempered glass, or “safety glazing,” is required in areas identified as “hazardous locations.” What these locations have in common is the existence of a hazard while occupants are on their feet. A few examples of hazardous locations are bathroom floors, stairs, ramps, and areas where glass is too close to the floor. All of the locations where safety glazing is required reference “walking surfaces,” “standing surfaces,” or “the floor.” A window seat is meant for sitting—and there is little probable hazard in that stationary activity.

It’s always possible to come up with “what if” scenarios in which someone, perhaps a child, could run across the seat or stand on it, but the code minimum standard is not meant to protect us from every bad idea we can imagine. Building codes are intended to protect us from probable hazards, not possible ones.

As responsible contractors, though, we can do better than D-minus. For ourselves and for our clients, we can look beyond what the government authority requires and consider what’s best for the

occupants of the home at the time. Are there children? Do the clients already have safety concerns? Is there a high fall hazard outside the window? Is the seat going to get daily use as a seat for a breakfast nook or dining table, or is it going to be more of a decorative element? Should you even build a seat where the back is a window? And what about the fall hazard when the window is opened? These are just some of the questions to consider when deciding a client’s expected and affordable grade of safety.

While you weigh all the various issues around your client’s safety, consider that replacing or reglazing a window with tempered glass isn’t the only way to achieve the benefits of safety glazing. For situations that require safety glazing, the IRC details two standards. These standards can be met by applying various proprietary films on existing windows, somewhat like applying tint on your car windows. While typically marketed for security purposes, these products often meet the standards for safety glazing—CPSC 16, CFR 1201, or ANSI Z97.1—and might be a less expensive way to achieve peace of mind for your clients.



Tempered-glass etching. This etching (shown several times its actual size) on the corner of a glass panel indicates that the glass is tempered. Tempered glass is stronger than conventional plate glass and is used in situations where stronger glass is required, such as for windows at the bottom of a staircase or in a bathroom where a wet floor can be a walking hazard.

Photo by Glenn Mathewson

Q Which is better for attaching sidewall shingles, nails or staples?

A Chris Yerkes, a cedar-shingle installer certified by the Cedar Shake and Shingle Bureau (CSSB), and owner of Cedarworks, in Brewster, Mass., responds: When I started in the sidewall-shingling business, I was taught the old-school hand-nail method for attaching shingles. Now I'm the ripe old age of 47—and I was probably one of the last to be taught this bygone method.

In my experience, staples have much better holding power than nails. They are an accepted fastener by shingle manufacturers such as SBC and Maibec. When properly installed, a staple grabs and holds more material than the small-head nail could ever hope to.

The installation manual for the CSSB says that staples for attaching sidewall shingles must be stainless steel. Much of the work I do is on Cape Cod within 15 miles of saltwater, so I use Type 316 stainless steel. (Type 316 is a higher grade than Type 304, which is acceptable in many other locations.) The staples should also have a minimum crown width of $\frac{7}{16}$ inch and should be long enough to penetrate the sheathing $\frac{3}{4}$ inch (or all the way through). The same fastener-location guidelines should be followed for staples as for nails: 2 inches above the butt line and $\frac{3}{4}$ inch in from each edge.

Pneumatic guns are used to drive staples, and it is important to keep the air pressure adjusted so that the staples are driven to the correct depth. As with nails, overdriven staples break the surface of the shingle, which weakens their holding power. Proper stapling also means keeping the staple crowns horizontal (or level). The farther off horizontal the staple is driven, the closer together the staple points are and the less wood is captured between the points. An experienced installer always keeps the staple gun as close to vertical as possible, so the crown is as close to horizontal as possible.

That said, staples aren't a good option for face-nailing. For areas such as on the courses directly below a window or in other places where the fastener will be exposed, there is no substitute for the look of good old-fashioned nails.