

## QUESTION & ANSWER

### How Far Can a Deck Board Extend Past a Joist?

**Q** Is there a maximum distance that a deck board can extend past a joist, such as at the edge of a deck?

**A** Glenn Mathewson, a building inspector in Westminster, Colo., responds: Intuitively, we all know there must be some maximum overhang for a deck board. Just imagine what would happen if you stepped on decking extended, for example, 12 inches past the last joist. However, it isn't easy to find information on how far it is allowable to extend a board.

To complicate matters, the allowable overhang — just like joist spacing — varies depending on the decking

material. When a material isn't specified in the code, inspectors generally rely on third-party test reports and the manufacturer's installation instructions. The International Code Council's Evaluation Service (ICC-ES) is the most common tester of manufactured decking, although a local building official can approve a different third party. To test the decking for compliance with IRC requirements, testing agencies follow the criteria in ASTM Standard D7032.

Generally, manufacturers then use the test results to create the installation instructions. Unfortunately, the information in the test reports and the installation instructions isn't always consistent; for instance, some provisions may be in one document but not the other — and for a correct installation, all provisions in both documents must be satisfied. Also, often the information you need isn't published in either document, leaving you to contact the manufacturer directly. Thus begins a wild goose chase.

After reviewing installation instructions and test reports from various decking manufacturers, I can at least make a few generalizations about overhang distances. However, if your design requires a questionably large overhang, your best bet is to research the specific product limitations. At the conservative end of the spectrum, the published documents for a couple of medium-density polyethylene

and-wood composite decking products specify zero overhang. Moving from this extreme, specs for some other medium-density polyethylene products and for high-density polyethylene products allow overhangs from 1 inch to 2 inches. Many polypropylene products, which have much more rigidity than polyethylene products, boast an impressive 4-inch maximum overhang.

Natural wood decking, of course, has no manufacturer, and lumber products don't usually undergo third-party testing, as their properties are well-known and can be evaluated by a design professional. In lieu of hiring an engineer to approve, say, a 2-inch decking overhang, I would rely on your own professional experience and that of the local building department to know what is obviously acceptable or not.

The only slightly related provision in the 2006 IRC is section R502.4, which allows a load-bearing wall to be offset horizontally from the supporting structure below, up to a distance equal to the depth of the floor joists it rests on. Fundamentally, this should be no different than the load placed on the edge of decking that's offset from the joist below. So, for example, a 2x6 deck board could easily extend 1½ inches beyond the edge of the supporting joist. ❖



**This overhang is an eye catcher. After investigation, the product was found to allow a maximum 1-inch overhang, which means this installation is a code violation.**

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