

QUESTION & ANSWER

Does Ipe Have a Class A Fire Rating?

Q I thought that ipe decking had a Class A fire rating, making it suitable for use in places such as the urban-wildland interface (areas prone to wildfire — typically a concern in the arid West) and on urban high-rise rooftop decks. However, I haven't been able to secure approval for its use in downtown Chicago. What's up?

A Andy Engel, editor, responds: I had thought the same thing. Indeed, a Web search on the topic brings up pages of hits with language such as “ipe is given a Class A fire rating (under the UBC-uniform building code), the same rating given to concrete & steel” and “the NFPA test results have shown that ipe is ... naturally resistant to fire (rated Class A by the NFPA or class 1 by the UBC).”

Despite this online information, which creates the impression that ipe is widely approved as a fire resistant material, its acceptance in fire-sensitive construction seems to be an emerging issue. The first call I made investigating this question was to the USDA's Forest Products Laboratory (www.fpl.fs.fed.us), a respected source for information on all things wood. The scientist I spoke with there, who said he'd recently received a lot of questions about ipe's fire rating, couldn't provide a definitive answer.

Next, I spoke with Carl Widder, res-

idential deck product sales manager at Timber Holdings, a major ipe importer. Widder says that in 1989, Timber Holdings had ipe tested using the ASTM E-84 protocol, which is how materials are rated for fire resistance, and the ipe garnered a Class A rating.

So what's the problem? There are several. First, the test data above is owned by Timber Holdings. Because of quality control and liability — and because it paid for the testing — Timber Holdings provides documentation only for its own ipe. Other importers may provide testing documentation, but you will have to request it from your supplier.

Also, about two years ago, the ASTM E-84 test protocol changed. Timber Holdings hasn't yet tested ipe by the new procedure, and that's probably true of other importers as well. Your local inspector may be satisfied with the old E-84 data, but some inspectors may not be.

To further complicate matters, Cal-

ifornia is currently developing new standards for construction materials used in the urban-wildland interface. A significant amount of real estate will be subject to the new rules, and the state's emerging standard is likely to affect how all decking — not just ipe — is rated for fire resistance.

Testing is expensive, and Widder says Timber Holdings isn't likely to retest its ipe until there's a consensus on a national standard. Unless the local authority accepts the old E-84 rating, ipe users may be scrambling for approval in fire-sensitive areas for a time. Widder did tell me that ipe is generally accepted (even in Chicago, a jurisdiction that historically takes fire protection seriously) as having a Class B fire rating, which means it's fine for use on most backyard decks. But if you're working where fire is of particular concern, don't assume the local inspector will allow the use of ipe just because the information you find online says it's a Class A material.

Locate Utilities Before Digging for Piers

Q Considering the minimal depth of deck piers, is it really necessary to schedule an underground utilities locater service?

A Glenn Mathewson, a building inspector in Westminster, Colo., responds: Yes! In many U.S. locations, winter temperatures require foundation piers for decks and other structures to extend below the frost line, which can be 48 inches or more

deep. This well exceeds the minimum depth required for some underground utility cables and pipes. Even in areas with warm winters and no frost depth, the International Residential Code requires footings to be at least 12 inches deep in undisturbed soil.

Digging just those 12 inches could cause an unpleasant and unplanned encounter with the site utilities.

Not only do damaged underground utilities present an obvious safety hazard, they usually can't be repaired legally by the average deck builder.

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Utility Depths in the 2006 IRC	
Electrical service cable	18 inches
120-volt branch cable	12 inches
Gas supply pipe (usually plastic)	12 inches
Gas pipe for grills, lights	8 inches
Water supply	12 inches (in cold areas, 6 inches below frost depth)

Most states require licensed electricians or plumbers to perform that work, and not many deck companies have such licensed professionals on the payroll.

Excavating to repair a gas or water leak or an exposed live electrical conductor can make quite a mess of your client's yard — not a great way to start a project. Even if the utility is not damaged, you may need to relocate it or the pier, which may require modifications to the deck design and will certainly delay your schedule.

Calling to have utilities located is easier than ever. Dialing 811 from anywhere in the United States, including Alaska and Hawaii, reaches your local utility notification office, where you request the locator service. Make this call as early as possible, as the location of utilities can limit the deck design; you can't safely put a pier where there's a utility.

When I was a deck builder, I would sometimes ask serious clients if they'd mind if I had the utilities located before our first design meeting. That helped insure the design my clients fell in love with could actually be built. The forethought cost nothing, yet separated me from other contractors by demonstrating my competence and attention to detail.

Underground landscape sprinkler pipe, to my knowledge, is the only

underground construction material that a common locator service doesn't detect. You might try dousing. I can't speak about finding aquifers hundreds of feet below the ground, but I have found sprinkler pipes this way.

I used to keep two 24-inch pieces of 8-gauge bare copper wire in my trailer. Each piece was bent at 90 degrees about 6 inches from one end. I held the 6-inch ends loosely in my hands, with my elbows bent and my forearms horizontal. The 18-inch ends projected away from me, parallel to each other. I can't explain it, but when I reached water or electricity, the wires either crossed or moved away from one another.

If you're a skeptic, test it out at home. If it doesn't work, well, you would have hit the sprinkler pipe anyway. And while I find dousing works for locating sprinklers, it's no substitute for calling 811. Let the professionals find the more dangerous and costly secrets below the soil. ♦

GOT A QUESTION FOR OUR EXPERTS?

Send it to *Professional Deck Builder*, 186 Allen Brook Lane, Williston, VT 05495; or e-mail it to prodeck@hanleywood.com.