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— The Editors

# MATERIALS & TECHNIQUES

# **Slab Waterproofing**

### Posted by Al:

A foundation contractor told me that he uses a waterproofing additive in the concrete when pouring a slab-type foundation instead of a vapor barrier. He claims that this is a better procedure because a vapor barrier doesn't seal around plumbing, gets punctured, tears, etc. I am interested if anyone has found this to be effective.

## • Followup posted by Keith:

I'm not aware of any additive that will "waterproof" concrete. Higher-strength concrete will become less permeable but still transfer moisture. We built a 2-million-gallon water tank using 5,000 psi concrete. You could say it's waterproof as there's no water present on the exterior, yet evaporation still occurs through the sides and top...

### • Followup posted by Ron:

I am not aware of any additive that will do what your post implies... Contact *Concrete Construction* (630/543-0870; cceditor@wocnet.com), part of the Aberdeen Group. Their specialty is concrete of all kinds, and they can give you an informed opinion.

### • Followup posted by figuers:

Keith is correct: There is no additive that will make concrete waterproof (prevent the transmission of water or water vapor). If there were, all concrete pool builders would use it. Another problem is that concrete cracks when it cures. The cracks are preferential flow paths for water, with transmission rates 10 to 100 times that of the surrounding uncracked concrete.

[A search of Aberdeen's Construction Supernetwork (www.worldofconcrete.com) found a Problem Clinic article in Concrete Construction (July 1998) entitled "Can an Admixture Replace a Vapor Barrier?" Here, reprinted with permission, is an excerpt:

**Question:** Our finishers complain whenever we're required to place concrete directly on a vapor barrier. The concrete bleeds longer, delaying finishing, and seems more likely to crack. We've been told we can solve this problem by ordering concrete with an admixture that makes the walls of internal concrete pores water-repellent. Is this an accepted alternative for a vapor barrier or vapor retarder?

Answer: We don't think so. Though such dampproofing admixtures may limit liquid movement caused by capillary flow, they have little effect on the movement of water vapor through the pores of unsaturated concrete. Water-vapor emissions cause many of the problems that vapor barriers are designed to prevent. Also, if the concrete slab cracks or is jointed, water vapor can still move through these openings despite the presence of a dampproofing admixture....]

continued on next page

#### **BUSINESS STRATEGIES**

# **Pay Rates**

# • Posted by Mike:

I'm wondering what average pay rates are for help. I started keeping an on-the-books, full-time helper/carpenter about a year and a half ago. I've now got a helper who is a vo-tech student graduating this year. I've subbed out carpentry before, but I'd like to develop a little more in-house capability. Anybody want to volunteer a few general pay ranges for helpers, mid-level carpenters, lead carpenters? I'd just like to know if I'm in the ballpark or living in the past. I'm slow to hire because I'm a control freak, but I realize I'm limiting myself (and burning out).

## • Followup posted by young bob:

Define "lead carpenter." Would he have to deal with subs? Would he have authority/responsibility to make changes? Would he meet with customers? Order materials? I think a hard working rookie should be worth about half what a carpenter who can work unsupervised gets. As for this "lead" thing, I want to hear what you expect from this guy (or gal, sorry).

## • Followup posted by Mike:

Bob, thanks for your response. It made me realize that I hadn't really thought about that lead carpenter position. In this area we used to call an advanced carpenter a "mechanic." This is a guy who can handle pretty much anything — framing and rafter layout, maybe laminate and tile work, trim, whatever is needed. I'm paying my helper \$7; I was paying a mid-capability carpenter \$15. That kind of falls in line with your estimate of a helper getting about half of what an unsupervised worker makes.

With the labor market so tight, I'm looking for a realistic idea of what it'll take to attract and keep help. My helper was out after an automobile mishap and I wasn't having much luck finding anyone qualified in this area. Even the county vo-tech school was tapped out. Everyone is working.

# ○ Followup by young bob:

Here in western Wash., \$15 sounds about right for a mid-level guy, but he'll be "looking around." For \$7, all you're talking about is high school summer help. A "good" carpenter is low- to mid-\$20s. Anyone I know that I would consider "lead" material is on their own. You could get a pretty good regional picture by looking in the want ads.

## • Followup posted by Dennis:

In western Wis., a helper goes for \$10; a so-so carpenter who works when he wants, \$12.50; and a young, eager beginner carpenter, \$18.50 to start. Journeymen — if you can find one — are mid-\$20s plus benefits.

### • Followup posted by Michael:

I think the key words here are "attract" and "keep." If the pay is not high enough, anyone with talent is either going to be constantly looking for something better or going out on their own. In the Northeast, a laborer is worth \$10/hr, and a decent lead carpenter — one who can run the job for you and cover whatever problems may arise — is worth \$25, if not \$30 or more. I think it would take at least this amount to attract and keep them. Remember, a good lead carpenter is *invaluable* and will expect to be paid as such. If he is treated as a valued member of the organization, this will come back doubled in responsibility and dedication to your company.