Letters

Garage Slab Tips

Thank you for the article "Better Garage Floors" (5/11), which contains most of the advice I've presented to clients for the last 20 years on making better concrete. I offer one more point of advice and a couple of lessons from experience.

The photo of concrete delivery shows it coming directly out of the chute of a ready-mix truck, which is excellent. One of the best ways to end up with cracks throughout hardened concrete is to use a pea-gravel mix that can be pumped through a hose. The huge portion of sand in a pea-gravel mix requires a lot of extra water just to wet all the sand grains. As this water evaporates, the concrete cracks much more than a standard rock mix does.


Better Garage Floors

by Bill Palmer and Paul Newman

Ten tips for pouring stronger, crack-free concrete slabs

On the last few concrete placing operations I supervised, I was the wheelbarrow jockey. On the last placement, a couple of helpers and I even moved the concrete in five-gallon buckets. It takes a couple of workers to lug a concrete pump hose around anyway; even though I had to pay about 30 minutes of standby time for the concrete truck, I saved about 200 bucks on the pump and ended up with better concrete for less cost.

I've also cured several slabs using 0.3-mil plastic sheeting (typically sold in 12-foot-by-400-foot rolls for paint masking). This ultrathin plastic clings to wet surfaces easily because it doesn't have enough rigidity to stand up on its own. Almost as soon as we spread it out, enough vapor has condensed on the bottom of the sheeting to weight it down onto the slab. Overlaps need to be weighted down to resist breezes, but that's easy because the plastic doesn't fight back. Where surface mottling is acceptable, this is a very effective and economical curing method.

Thor Matteson, S.E.
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Wood Foundation Skeptic

In a lifetime in this business, I have never seen a wood foundation and cannot believe that anyone would ever want one under his house. Let's start with the obvious lack of resistance to exterior soil pressure vs. CMU or poured foundations; there is no way a framed wall is even comparable. Eventual water infiltration is all but a foregone conclusion. Your 6-mil vapor barrier is shredded by the backfill, and while you may be fortunate enough not to have any penetrations through the foam board, eventually moisture is going to find its way in somewhere. When this happens on concrete, maybe you get a damp wall and a little efflorescence. When it happens in a wood wall, you get rot, and probably termites or carpenter ants. I've seen insects consume pressure-treated 6x6 posts above grade, so I am sure they would make fast work of plywood and 2x8s buried in wet ground. The best lesson learned from this article would be to hire a mason, unless you like the idea of a biodegradable foundation.

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Author Terry Shields responds: I understand your concerns and would probably share them if I lived in an area where pressure-treated wood foundations (PWFs) were uncommon. I worked on my first wood foundation in 1991 and have built many since then. In addition to my own jobs, there have been plenty of other PWFs built in this area to validate their performance. I do not know the exact strength of wood foundations vs. concrete, but it's important to note that these structures are being built with professional engineering input. As for moisture management, I agree that it's critical; it's important to create positive drainage and manage moisture for any foundation, and we take great care at backfill not to "shred" the poly barrier on the outside.

Although wood foundations may not be suited for every situation, some of the warmest, driest, most comfortable basements I've been in are inside PWFs.

KEEP 'EM COMING!

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