

Q We are sealing a poly vapor retarder over exposed earth in a basement before pouring a slab. The customer has been monitoring the home's indoor air and says she's seen spikes in radon levels, so we are prepping for a subslab ventilation system and sealing the poly to allow a radon mitigation contractor to come in later if the customer feels it's necessary. How do you seal poly to poly? At the perimeter, we are using spray foam insulation to pin the poly to the walls (insulating the walls is part of the job), but we're not sure what the best sealant is to use for field seams. Silicone and polyurethane caulk don't stick well to poly once cured.

A Clayton DeKorne, chief editor of JLC, responds: I reached out to a few people to get their recommendations. Jake Bruton, owner of Aarrow Building in Columbia, Mo., has used Tremco Acoustical, Geocel 2300, and Lexel sealants, which stick well enough, he reports, but can be a challenge because of the tendency of the sheet to move back into the shape it held on the roll. "You apply a bead of sealant, mush two pieces together, and five minutes later, the initial grab of the sealant isn't enough to capture the second layer of poly, and the two layers spread apart," he explains. He has had much better luck with Stego Tape and Siga's Fentrim tape on polyethylene and polyolefin sheeting, such as Stego Wrap. "The ability to positively attach the two layers with an adhesive rather than a sealant provided us with greater success. However, in

a crawlspace that isn't receiving a slab, my go-to detail is to generously overlap the layers of poly and allow our spray-foam contractor to quickly flash a layer of closed-cell spray foam over the joint," he continues. "Generally, the spray-foam contractor is on site and in the crawl for the rim joist anyway. A couple more quick joints aren't going to break the budget. This doesn't work for a basement where a slab will be located because of the elevation of the foam, but it works better than the tape if you have the option."

Rick Mills, project manager for Jackson Andrews Building + Design in Virginia Beach, Va., reports his company has used Stego Mastic on slab prep around any irregular shapes (such as pipes and conduit) and Stego Tape to seal seams in Stego Wrap and attach the wrap to CMU walls (see "High-Performance Crawlspace Foundations," Sep/20). His "go-to," however, is Zip System tape. "It does stick to just about anything," he says. "The big challenge is, once it's stuck to the poly, there is no chance of repositioning it."

Bernard Montoya, foreman for Rodolfo Contracting of Yonkers, N.Y., which specializes in radon mitigation, says the best he has used is 3M 72 Blue, a pressure-sensitive spray adhesive that's compatible with a wide range of foam and plastics. "It has to be the most expensive choice—like \$35 a can [for 17.2 ounces]," he laughs. "But it's super-fast." His crew lays out the sheets so they overlap, then folds back the overlap. "One person runs a line of spray; another folds the lap back over and presses it down, rubbing it out with a cloth, and we're done," he explains. "It bonds even if there's dirt and dust on the plastic," he continues. "We've used tapes, but they can be a problem when dust clings to the plastic. That is like always in a dirt basement."



Stego Mastic (black goop around penetrations) and Stego Tape (red) prove effective for sealing Stego Wrap—a thick, polyolefin plastic specifically designed as a subslab vapor retarder.

Photo by Rick Mills