



Radon Resistant Construction

Information provided below is a suggested method and not the only method nor the only requirement of the code. For all details refer to Appendix F of the 2012 IRC.

2012 IRC REQUIREMENTS

1. Place the 3" or 4" tee below the slab and vapor barrier in at least 4" of aggregate. (The aggregate should pass through a 2" sieve and be retained by a ¼" sieve.)
2. All penetrations through the vapor barrier need to fit closely. All floor openings and joints need to be sealed with an approved sealant. (i.e. caulk, silicone)
3. All sections of the slab should have provisions for gases to pass to the vent pipe.
4. Vents should be sloped to allow for positive drainage to the ground below.
5. The pipe may terminate in an accessible attic and be capped. Label the pipe as "RADON PIPE" at each floor level and in the attic. A 110 outlet is recommended to be roughed in if a future vent fan is required.

EPA RADON RECOMENDATIONS

What are Radon-resistant construction techniques?

The techniques may vary for different foundations and site requirements, but the basic elements are:

A. Gas Permeable Layer

This layer is placed beneath the slab or flooring system to allow the soil gas to move freely underneath the house. In many cases, the material used is a 4-inch layer of clean gravel.

B. Plastic Sheeting

Plastic sheeting is placed on top of the gas permeable layer and under the slab to help prevent the soil gas from entering the home. In crawlspaces, the sheeting is placed over the crawlspace floor.

C. Sealing and Caulking

All openings in the concrete foundation floor are sealed to reduce soil gas entry into the home.

D. Vent Pipe

A 3- or 4-inch gas-tight or PVC pipe (commonly used for plumbing) runs from the gas permeable layer through the house to a point 12" above the roof, to safely vent radon and other soil gases above the house.

E. Junction Box

An electrical junction box is installed in case an electric venting fan is needed later.

