Installation Instructions

VAPORMAT™ 040

Radon, Moisture and Vapor Intrusion Mitigation System

VAPORMAT™ 040-48 is an open-matrix geotextile that is installed under a concrete slab or flexible plastic membrane as part of a soil depressurization system. It provides a gas permeable layer to collect soil gasses and direct them to a vent stack and out through the roof. VAPORMAT 040-48 comes in 50 ft rolls that are 4 ft wide. It can be installed to provide a full capillary break between soil and living space of the house. For strips, it is recommended to use the product VAPORMAT 080-15.

- Rolls can be cut with a utility knife or scissors.
- Lanes should be placed with the green fabric side down.
- Joints are made by tucking under the top fabric and butting up close to the edge of the adjacent mat.
- Secure with ground staples.

Layout

VAPORMAT 040-48 is installed in lanes with the edges butted up to each other. The rolls can be cut in the length and width direction to fit the foundation footprint. The mat can be cut up to the edge of the floor/wall joint or extend up the wall.

Be careful to properly seal the plastic membrane to the outside of the capillary break. Lanes are typically installed vertically when attached to the wall. See figures 1 and 2.

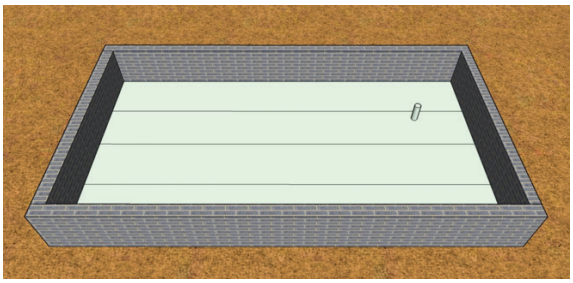

Figure 1: Full Capillary Floor installation

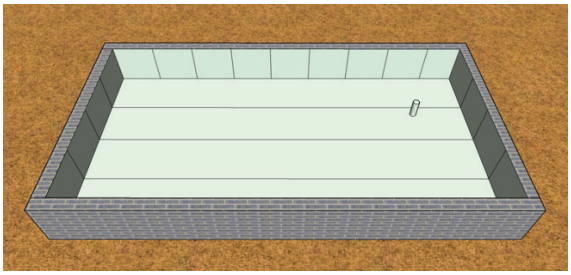

Figure 2: Full Capillary Floor and Wall installation

Vent Stack

Typically a 3” or 4” PVC pipe is stubbed through the concrete or membrane.

Be careful not to dead head the vent stack end into the soil. VAPORMAT 040-48 is very adaptable and can be combined with the vent stack in many ways. It is recommended to dig a suction pit below it and fill with aggregate. See figure 3. Special PVC fittings that improve airflow through the joint can also be used.

Cut a hole in the top fabric to allow the soil gasses to easily pass. Secure vent stack to the ground below.

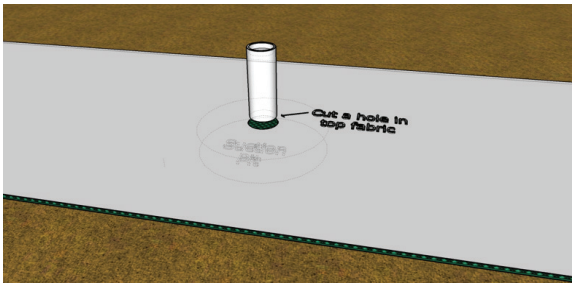

Figure 3: Vent Stack Installation

Further Construction Considerations

At minimum, place a 6 mil or 3 mil cross-laminated flexible sheeting on top of capillary break. Properly seal to floor and wall.

Typical entry routes for soil gasses are through floor openings, concrete joints, sumps, foundation walls, air handling units, ducts and crawl spaces accesses. Care should be taken to properly seal these entry points.

The vent stack shall extend at least 12-inches above the roof and at least 10 ft from any window or other opening to conditioned space. Routing the vent stack through heated space of the house is recommended. This creates a natural driving force to the soil depressurization system. Avoid excessive use of elbow joints.

Provide an electrical outlet in the attic space within 6 ft of the vent stack to allow a fan to be added to the system if necessary.

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