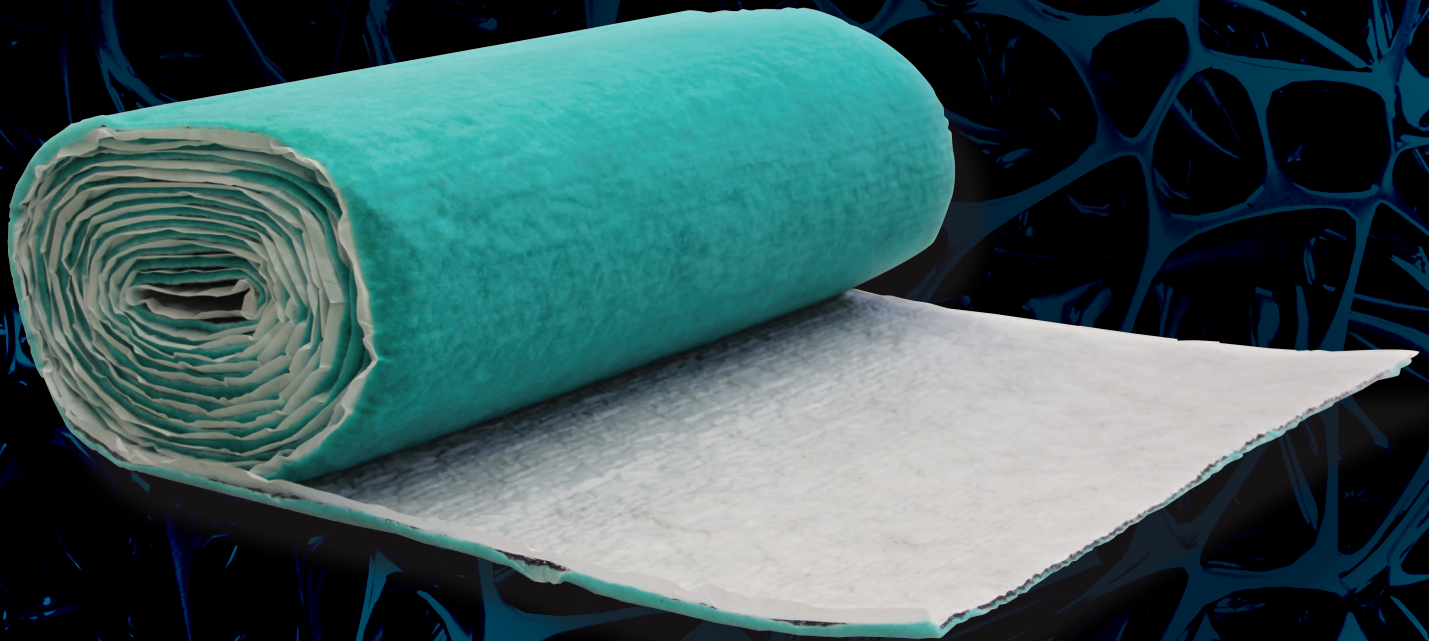


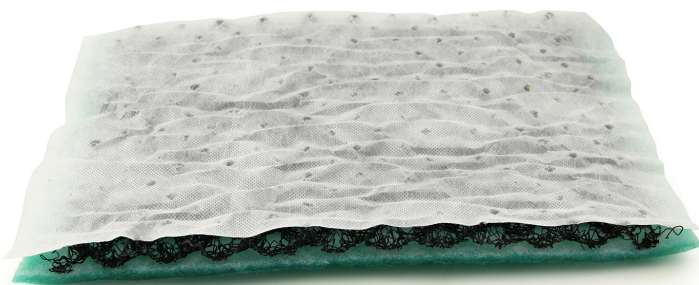


**(800) 767-3703**  
**Ward Hill, MA**



# VAPORMAT™

**FOR RADON, MOISTURE AND VOC REDUCTION**



**SAVES TIME & MONEY**

**EASY TO INSTALL**

**>40% RECYCLED PRE-CONSUMER MATERIAL**

**LEED V4 CREDIT ELIGIBLE (1-2 POINTS)**

**COMPLIES W/RRNC 2.0 & IRC Appendix F**

**COMPLIES W/ANSI-AARST CC-1000 STANDARD**

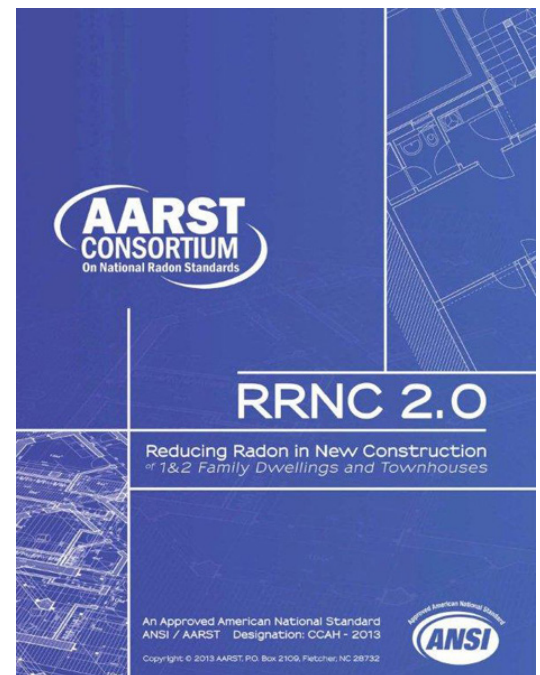


## Radon Reduction in New Building Construction

New construction radon standards, including the U.S. EPA-recommended ANSI-AARST Standard, RRNC 2.0: Reducing Radon in New Construction of 1 & 2 Family Dwellings and Townhouses, call for the installation of a soil gas collector beneath the slab. Also complies with ANSI-AARST CC-1000.

An increasing number of mitigation and construction contractors are using soil gas collector matting, choosing it for its easy installation. In addition, RRNC 2.0 (Section 402.1.1.2) recommends its use and further states: “The soil gas collector shall consist of a strip of geotextile drain matting not less than 10 feet (3 m) in length and having a cross sectional area of not less than 12 square inches (77 sq. cm). The strip of matting shall be placed on top of the soil or in a trench.”

The VAPORMAT System, available in 0.4-inch and 1.1-inch thicknesses, meets and exceeds RRNC 2.0 and other standards for the collection of radon, moisture, and other toxic vapors that come from beneath the slab. It works effectively with both passive and active soil depressurization systems for residential, commercial or industrial building applications.



## Additional Construction Considerations

At minimum, consider placing a 6 mil or 3 mil cross-laminated flexible vapor barrier on top of the VAPORMAT prior to casting the slab or placing the floor assembly.

Typical entry routes for soil gases into a home are through floor openings, concrete joints, sumps, foundation walls. Air handling units, ducts and crawlspace accesses. Take care to properly seal these entry points. The extend the vent stack 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 creates a natural driving force to the soil depressurization system. Route the PVC pipe through and exiting the home following local fire codes.

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

## VAPORMAT™ Information and Specifications

The VAPORMAT System is enveloped in a filter fabric and is comprised of 95% air space, allowing the radon and other soil gases and vapors to be channelled to the riser pipe connection (Radon-T; see accessories on the back). Two sizes of VAPORMAT are available: 040-48 and 1-16.

Refer to back cover for additional specifications as well as product accessories.

## VAPORMAT™ Application

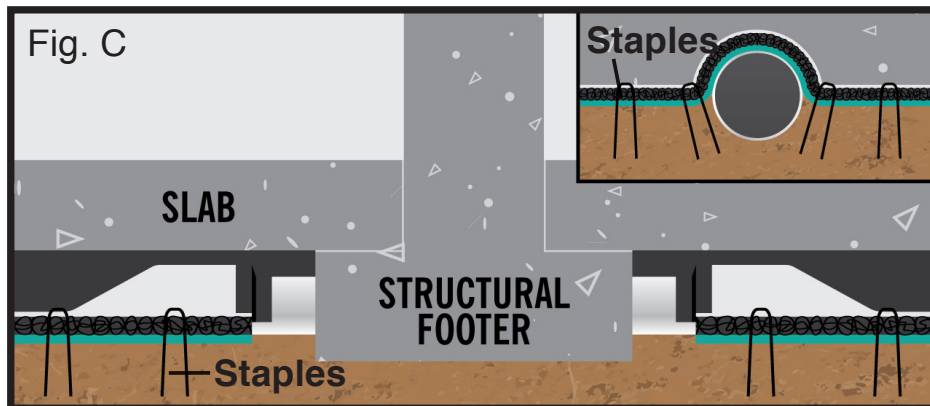
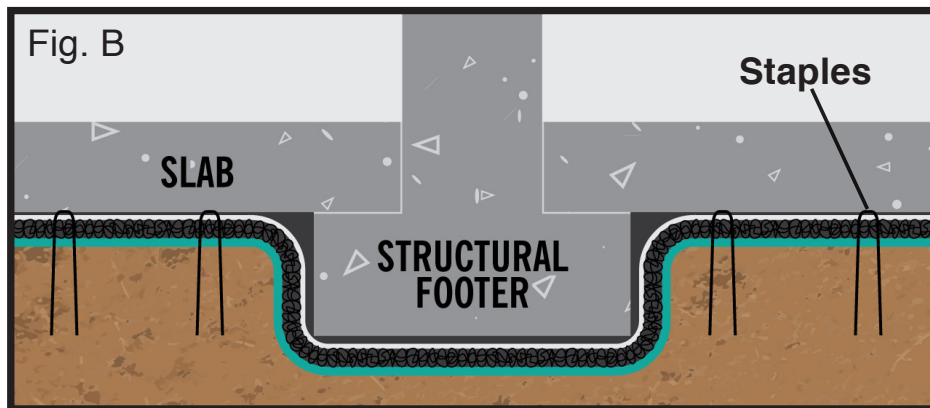
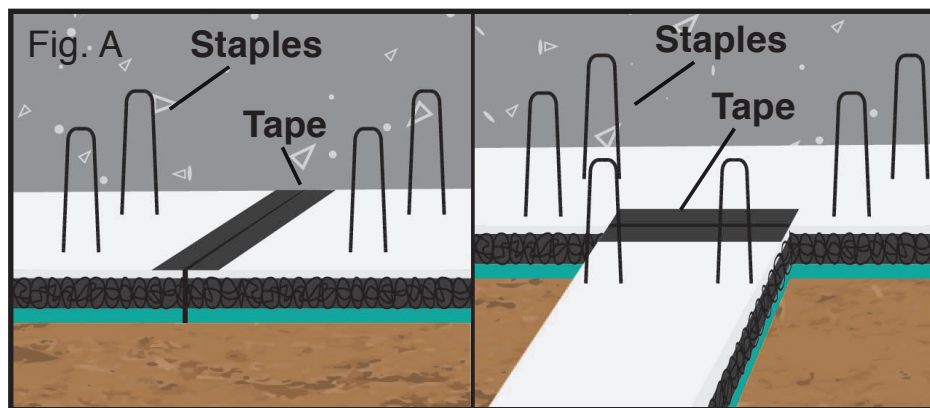
The VAPORMAT System can be used where a pressure field is required across obstacles or over distances; in conjunction with sand and/or gravel; or in place of perforated piping for negative pressure field extension under a concrete slab or radon vapor barrier.

### “T” JUNCTIONS, CORNERS, AND SPLICES (Fig. A)

The mat should be routed around the inside perimeter of the foundation. This will require an occasional corner or “T” junction. Furthermore, splices are recommended to join two lengths of mat together. Corners and splices are very easy to make, and do not require any special fittings. In the case of a splice, merely abut one section against the other, tape the seam [P/N 68017 (black), 68066 (white)], and staple with VAPORMAT Staples (P/N 66107) if needed for added security.

### BRIDGING A FOOTING (Fig. B,C)

There are two methods which can be used to bridge a footing using VAPORMAT, laying VAPORMAT beneath the footing or connecting to a horizontal pipe which cross-sects the footing wall.



## CONNECTING VAPORMAT™ TO RADON-T (Fig. D,E,F)

The RadonAway® Radon-T (see back cover “Accessories”) replaces ordinary pipe fittings as a base for RRNC and crawlspace systems, the Radon-T saddles over perforated pipe, provides better air flow, prevents blockage by construction debris, and is ideal for use with VAPORMAT.

## POURING CONCRETE OVER VAPORMAT™

The filter fabric that is on the top and bottom of the VAPORMAT System inhibits soil, gravel and concrete from entering the material and reducing its air collection capacity. If vapor barrier is not used as an overlayment, care should be taken that the fabric is taped along the splices sufficiently to keep the uncured concrete from entering.

The VAPORMAT also needs to be secured to the soil with RadonAway® VAPORMAT Staples (P/N 66107) to prevent the concrete from lifting it off the soil while it is being applied. Reinforcing bars and wire can be laid right on top of the VAPORMAT or vapor barrier (if present).

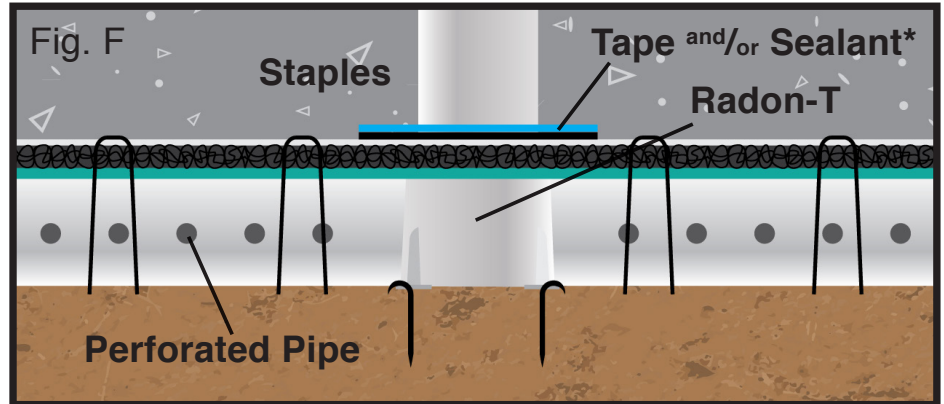
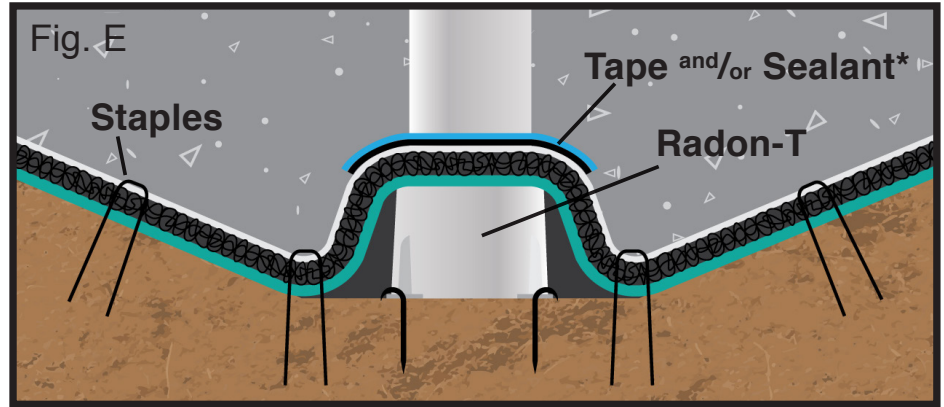
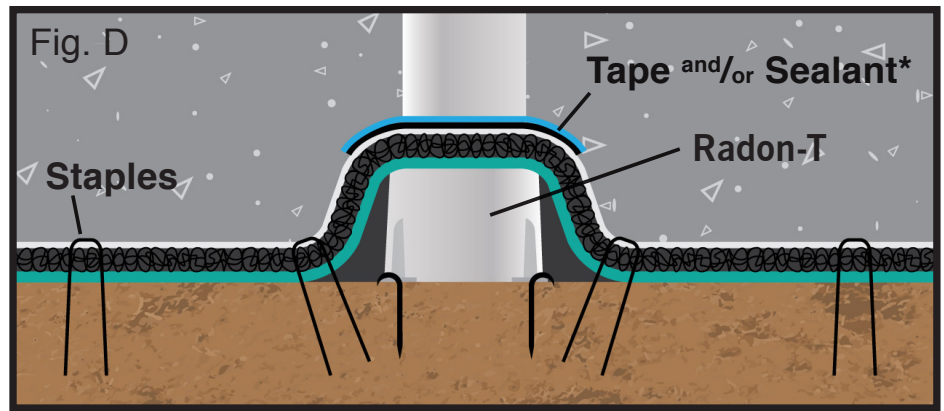
VAPORMAT is designed to be installed and work in the following conditions:

- Under concrete slab
- Under concrete slab and vapor barrier
- Or in conjunction with sand and/or gravel

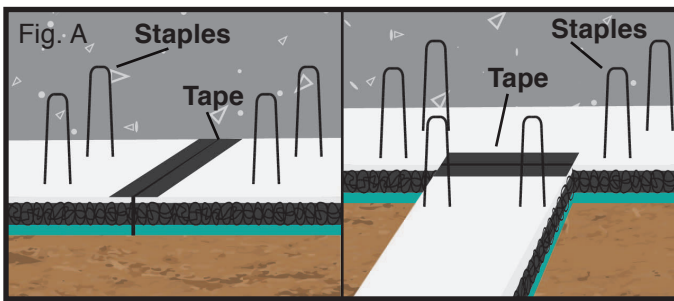
VAPORMAT has a high compressive strength and performs well under compressive loads exceeding 2500 pounds per square foot; the load of a typical foundation slab is only 30 to 60 pounds per square foot. VAPORMAT provides maximum airflow and has an ASTM D 4716 determined flow rate of 11.856 gpm/ft or 140.56 gpm/ft. This high flow rate far exceeds the maximum rate at which ground air can flow through the soil from beneath the slab.

## SECURING VAPORMAT™ AND RADON-T (Fig. D,E,F)

- VAPORMAT Staple spacing: Every 3' to 4' and at junctions
- Radon-T: Secure to subgrade with four 6" spikes provided with T.

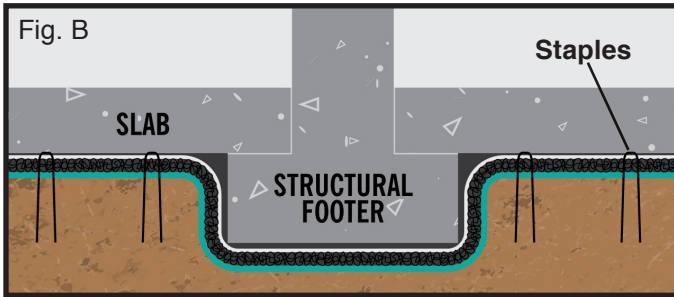


\*See back cover for Accessories.



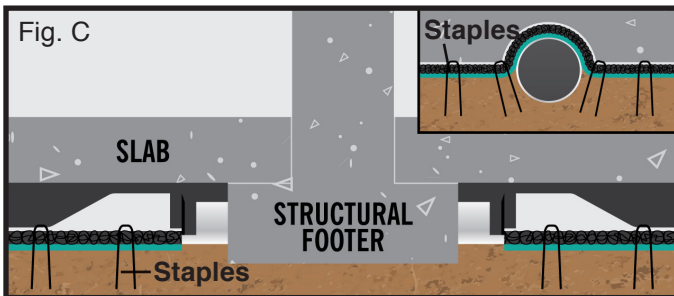
## “T” JUNCTIONS, CORNERS, AND SPLICES (Fig. A)

The mat should be routed around the inside perimeter of the foundation. This will require an occasional corner or “T” junction. Furthermore, splices will have to be made to join two lengths of mat together. Corners and splices are very easy to make, and do not require any special fittings. In the case of a splice, merely overlap one section over the other by a distance at least equal or greater than the width of the VAPORMAT (i.e., 16 inches (P/N 66238) or 48 inches (P/N 66105) depending on VAPORMAT product used) and anchor with four evenly spaced VAPORMAT Staples (see back cover “Accessories”) by pushing through the overlapping VAPORMAT and into the subsurface. The seam should also be taped [P/N 68017 (black), 68066 (white)] for added security, but is not required when vapor barrier is used over VAPORMAT. Straight line, “T” junction and corner overlays are illustrated.



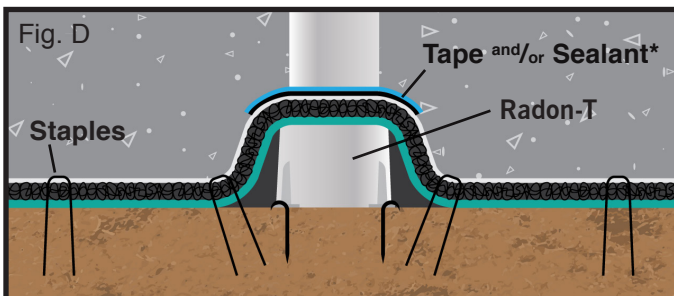
## BRIDGING A FOOTING (Fig. B,C)

There are two methods which can be used to bridge a footing using VAPORMAT, laying VAPORMAT beneath the footing or connecting to a horizontal pipe which cross-sections the footing wall.



## CONNECTING VAPORMAT™ TO RADON-T (Fig. D,E,F)

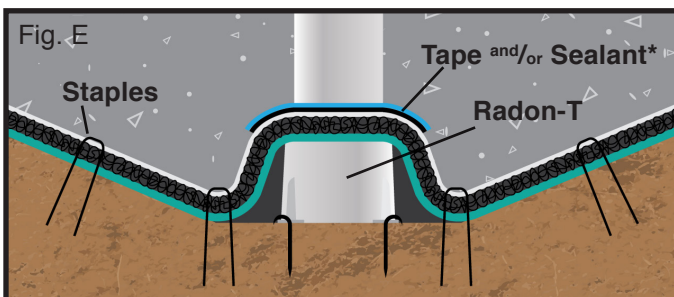
The RadonAway® Radon-T (see back cover “Accessories”) replaces ordinary pipe fittings as a base for RRNC and crawlspace systems, the Radon-T saddles over perforated pipe, provides better air flow, prevents blockage by construction debris, and is ideal for use with VAPORMAT.



## POURING CONCRETE OVER VAPORMAT™

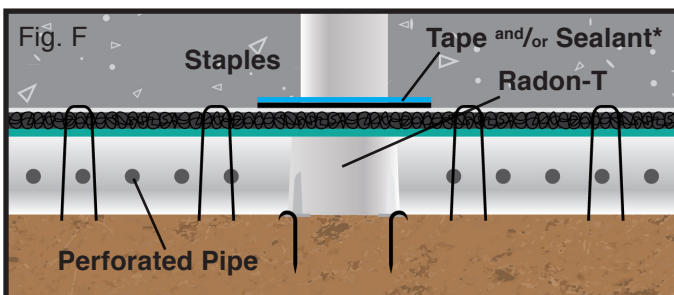
The filter fabric that is on the top and bottom of the VAPORMAT System inhibits soil, gravel and concrete from entering the material and reducing its air collection capacity. If vapor barrier is not used as an overlayment, care should be taken that the fabric is taped along the splices sufficiently to keep the uncured concrete from entering.

The VAPORMAT also needs to be secured to the soil with RadonAway® VAPORMAT Staples (P/N 66107) to prevent the concrete from lifting it off the soil while it is being applied. Reinforcing bars and wire can be laid right on top of the VAPORMAT or vapor barrier (if present).



VAPORMAT is designed to be installed and work in the following conditions:

- Under concrete slab
- Under concrete slab and vapor barrier
- Or in conjunction with sand and/or gravel



VAPORMAT has a high compressive strength and performs well under compressive loads exceeding 2500 pounds per square foot; the load of a typical foundation slab is only 30 to 60 pounds per square foot. VAPORMAT provides maximum airflow and has an ASTM D 4716 determined flow rate of 11.856 gpm/ft or 140.56 gpm/ft. This high flow rate far exceeds the maximum rate at which ground air can flow through the soil from beneath the slab.

## SECURING VAPORMAT™ AND RADON-T (Fig. D,E,F)

- VAPORMAT Staple spacing: Every 3' to 4' and at junctions
- Radon-T: Secure to subgrade with four 6" spikes provided with T.

\*See back cover for Accessories.



# VAPORMAT™

VAPORMAT™	040-48 (P/N 66105)	1-16 (P/N 66238)
Thickness	0.4 in	1.1 in
Width	48 in	16 in
Roll Length	50 ft	45 ft
Rolls per Pallet	10	24
Compressive Strength	>2,500 PSF*	>2,500 PSF*
Determined Flow Rate	11.856 gallons/min/ft or 140.56 gallons/min/ft <sup>2</sup> **	11.856 gallons/min/ft or 140.56 gallons/min/ft <sup>2</sup> **
Determined Cross-sectional Area (void space)	29.04	15.76
Percent Recycled	>40% (pre-consumer material)	>40% (pre-consumer material)

\*Concrete slab typically 30-60 PSF    \*\*Per ASTM 4716

## Accessories & Related Products



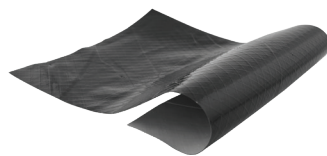
**RadonAway Hybrid Sealant**  
P/N 28523



**Radon-T**  
P/N 28353, 28354  
Single, 12-Pack



**VAPORMAT Staples**  
P/N 66107



**Radon Barrier**  
P/N 28567, 28565, 28566  
6 mil & 12 mil



**Tape**  
P/N 68017, 68066  
Black, White