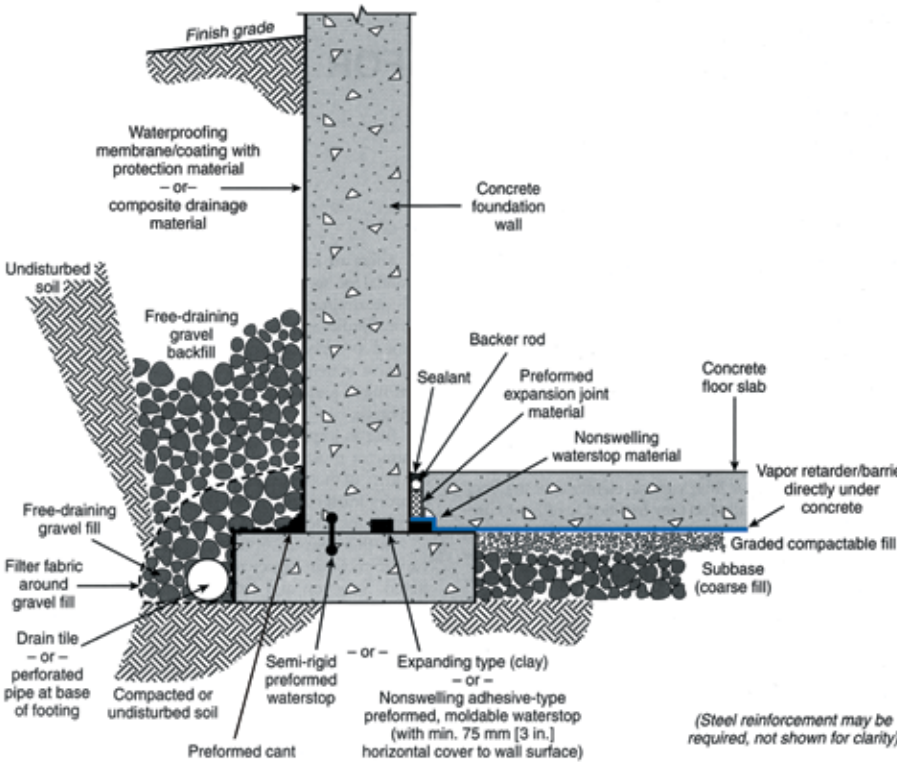
VaporBlock®
UNDERSLAB VAPOR RETARDER

INSTALLATION GUIDELINES

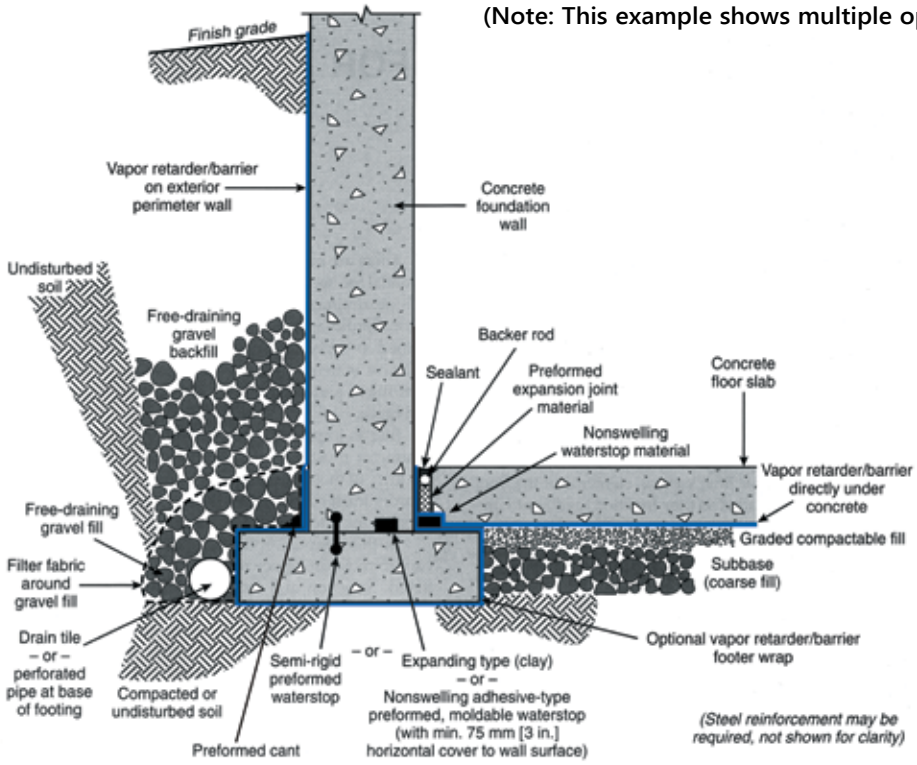
Please Note: Read these instructions thoroughly before installation to ensure proper use of VaporBlock®. ASTM E 1643 can also provide valuable information regarding the installation of vapor retarders. When installing this product, contractors shall conform to all applicable local, state and federal regulations and laws pertaining to residential and commercial building construction.

Materials List:

VaporBlock® Vapor Retarder (Barrier)
VaporBond (TVB4) 4" Seaming Tape
Butyl Seal 2-Sided Tape
VaporBoot Pipe Boot System w/ tape
VaporBoot Tape (optional)
POUR-N-SEAL™ (optional)
Mako® Screed Supports (optional)



Elements of a moisture-resistant floor system. General illustration only. (Note: This example shows multiple options for waterstop placement.)



Elements of a moisture-resistant floor system. General illustration only. (Note: This example shows multiple options for waterstop placement.)

OPTIONAL PERIMETER WALL & FOOTER METHODS

An optional perimeter wall class "A" vapor retarder can be installed with or without a bituminous coating applied to the concrete.

VIAFLEX VaporBlock® 10 or 15 mil (Class A) vapor retarders can be sealed to the perimeter wall with VIAFLEX Butyl Seal Tape. An optional footer wrap may also be applied.

Original diagrams on this page were reprinted with permission by the Portland Cement Association.
Reference: Kanare, Howard M., Concrete Floors and Moisture, EB119, Portland Cement Association, Skokie, Illinois, and National Ready Mixed Concrete Association, Silver Spring, Maryland, USA, 2008, 176 pages.

VAPORBLOCK® PLACEMENT

1.1. Level and tamp or roll granular base as specified by your architectural or structural drawings. If sharp crushed rock is used, a 1/2" layer of fine grade compactable fill is required between the base and the vapor retarder.

1.2. Unroll VaporBlock® running the longest dimension parallel with the direction of the pour and pull open all folds to full width. (Fig. 1)

1.3. Lap VaporBlock® over the footings and seal with VIAFLEX 2-sided Butyl Seal tape. Prime concrete surfaces, when necessary, and assure they are dry and clean prior to applying VIAFLEX Butyl Seal Tape. Apply even and firm pressure with a rubber roller. Overlap joints a minimum of 6" and seal overlap with VIAFLEX VaporBond Tape.

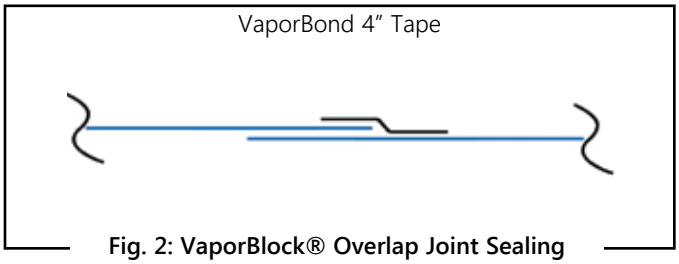


Fig. 2: VaporBlock® Overlap Joint Sealing

Fig. 1: VaporBlock® Overlaping Roll-out Method

SINGLE PENETRATION PIPE BOOT INSTALLATION

1.4. Seal around all plumbing, conduit, support columns or other penetrations that come through the VaporBlock® membrane. The VIAFLEX VaporBoot Pipe Boot System is the recommended sealing method. (Includes 25 pre-cut VaporBlock® pipe boots along with 1 roll of VaporBoot Tape). (Fig. 3 & 4)

Pipe boots may also be fabricated from excess VaporBlock® membrane (Fig. 3 & 4) and sealed with VaporBoot Tape or VaporBond Tape (sold separately).

Reminder Note: All holes or penetrations through the membrane will need a patch cut to a minimum of 6" from the opening in all directions.

To fabricate pipe boots from VaporBlock® excess material (see Fig. 3 & 4 for A-E):

A) Cut a square large enough to overlap 6" in all directions.

B) Mark where to cut opening on the center of the square and cut four to eight slices about 3/8" less than the diameter of the pipe.

C) Force the square over the pipe leaving the tightly stretched cut area around the bottom of the pipe with approximately a 1/2" of the boot material running vertically up the pipe (no more than a 1/2" of stretched boot material is recommended).

D) Use VaporBoot Tape or VaporBond Tape to secure the boot to the pipe.

VaporBoot Tape (option) – fold tape in half lengthwise, remove half of the release liner and wrap around the pipe allowing 1" extra for overlap sealing. Peel off the second half of the release liner and work the tape outward gradually forming a complete seal.

VaporBond Tape (option) - Tape completely around the pipe overlapping the to get a tight seal against the pipe.

E) Complete the process by taping over the boot perimeter edge with VaporBond Tape to create a monolithic membrane between the surface of the slab and moisture sources below and at the slab perimeter. (Fig. 3 & 4)

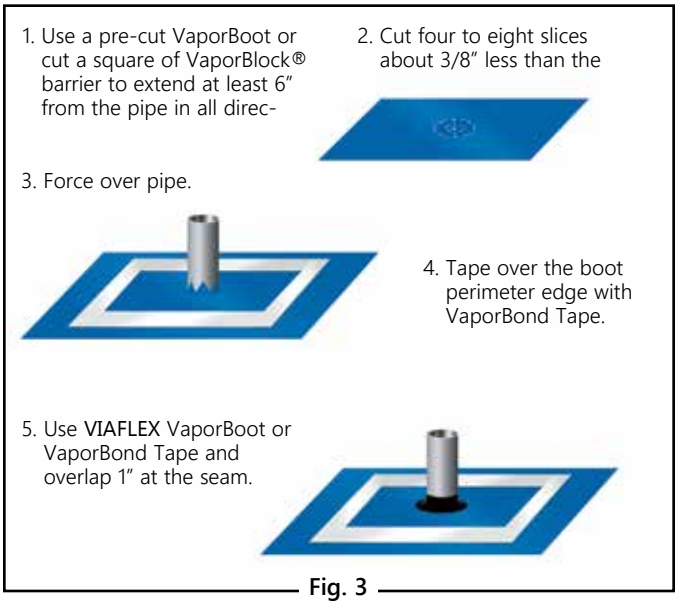


Fig. 3

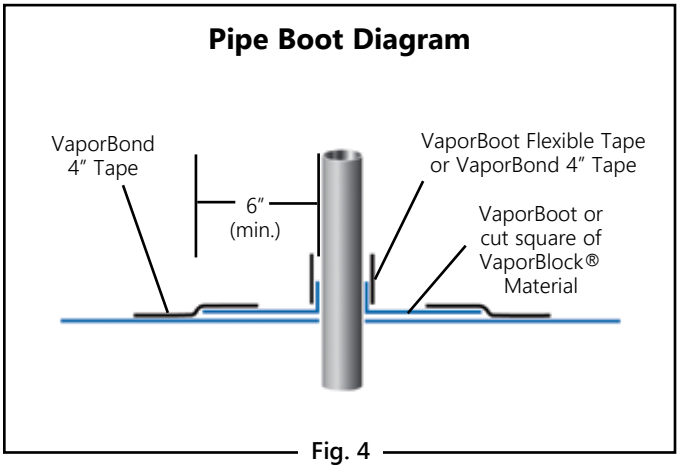


Fig. 4

MULTIPLE PENETRATION PIPE BOOT INSTALLATION

Option 1

1.5. For side-by-side multiple penetrations (option 1);

A) Cut a patch large enough to overlap 6" in all directions (Fig. 5) of penetrations.

B) Mark where to cut openings and cut four to eight slices about 3/8" less than the diameter of the penetration for each.

C) Force the patch material over penetration to achieve a tight fit and form a lip (Fig. 6).

D) Tape around each of the penetrations and the patch with VaporBond 4" Tape. (Fig. 7) For additional protection apply an acceptable polyurethane elastomeric sealant around the penetrations. (Fig. 8)

1.6. Holes or openings through VaporBlock® are to be repaired by cutting a piece of VaporBlock® 6" larger in all directions from the opening. Seal the edges of the patch with VaporBond Tape.

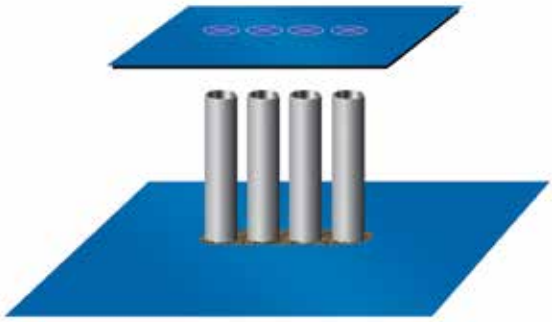


Fig. 5

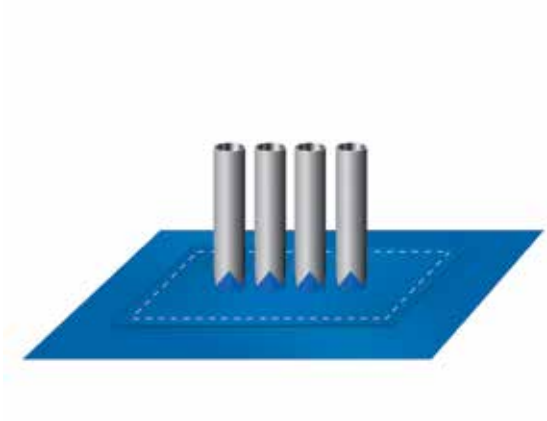


Fig. 6

Fig. 7

Fig. 8

MULTIPLE PENETRATION PIPE BOOT INSTALLATION

Option 2

1.6. POUR-N-SEAL™ method of sealing side-by-side multiple penetrations (option 2):

A) Intall the vapor barrier as closely as possible to pipe penetrations to minimize the amount of POUR-N-SEAL™ necessary to seal around all penetrations.

B) Once barrier is in place, remove soil or other particles with a dry cloth or a fine broom to allow for improved adhesion to the POUR-N-SEAL™ liquid.

C) Create a dam around the penetration area approximately 2" away from the pipe or other vertical penetrations by removing the relase liner from the back of foam strip and adhere to the vapor barrier. Form a complete circle to contain the POUR-N-SEAL™ materials (Fig. 11).

D) Once mixedm pour contents around the pipe penetrations. If needed, a brush or plat wooden stick can be used to direct the sealany completely around penetrations creating a complete seal.

E) DO NOT leave excess POUR-N-SEAL™ in plastic container for longer

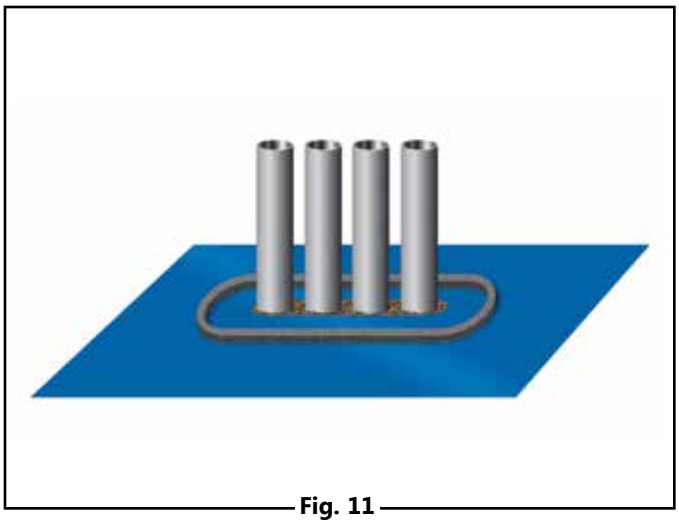


Fig. 11

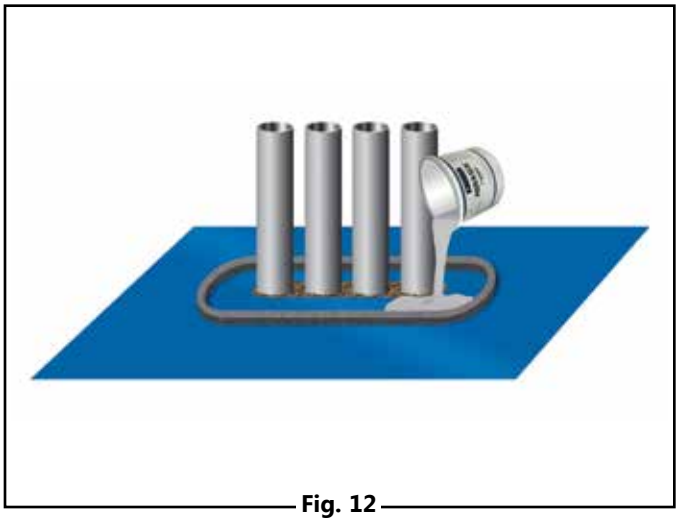


Fig. 12

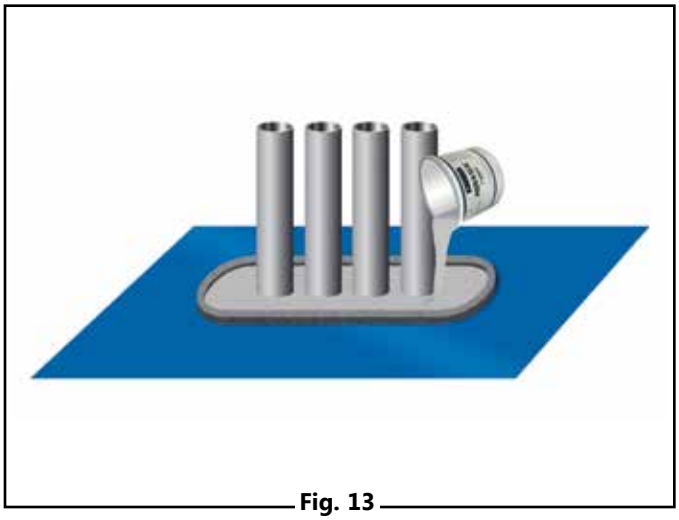


Fig. 13

VAPORBLOCK® REPAIR INSTRUCTIONS

Option 1 – VaporBond Tape

1.7. Proper installation requires all holes and openings are repaired prior to placing concrete. When patching small holes, cut a piece of VaporBlock® large enough to overlap the hole 6" in all directions (smallest patch will be 12" x 12"). Place patch material over the center of the hole and tape over the patch perimeter with 4" wide VaporBond Tape (Fig. 14-16).

When installing VaporBlock® around pipe penetrations, vertical columns, electrical ducts and other obstructions, you will find it necessary to cut it to the nearest outside edge. This cut can be easily sealed by cutting a strip of VaporBlock® 12" wide and centering it over the cut. Once in place, tape around the perimeter with 4" wide VaporBond Tape.

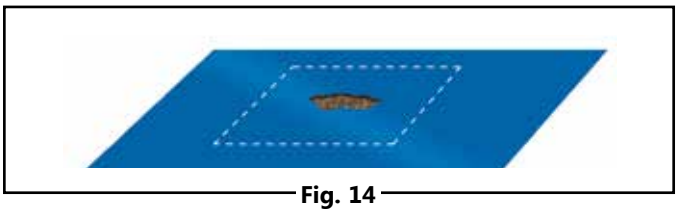


Fig. 14

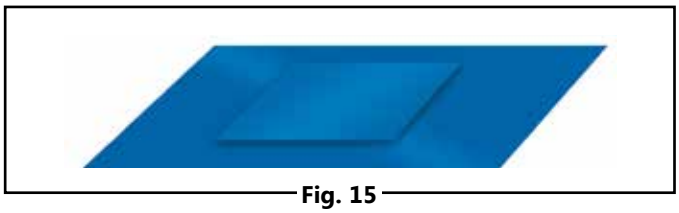


Fig. 15

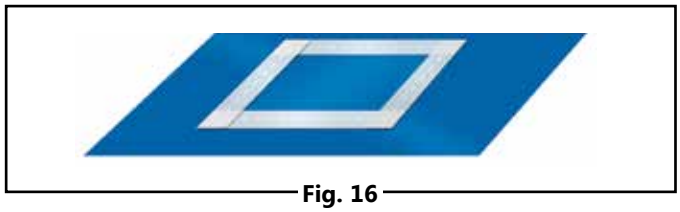


Fig. 16

VAPORBLOCK® REPAIR INSTRUCTIONS

Option 2 – VaporSeal™ Tape

1.8. Proper installation requires all holes and openings are repaired prior to placing concrete. When patching small holes, simply cut a 12" long piece of 12" wide VaporBond tape. Center over the opening. Apply pressure to create a seal (Fig. 17-18).

1.9. When installing VaporBlock® around pipe penetrations, vertical columns, electrical ducts and other obstructions, you will find it necessary to cut it to the nearest outside edge. This cut can be easily sealed with 12" wide VaporBond tape, by simply centering it over the cut, 6" on either side. Once the tape is placed correctly, apply pressure to assure a complete seal (Fig. 18).

Reminder Note: All holes or penetrations through the membrane will need to be patched with VaporBond Tape extending at least 6" beyond the edge of the hole or penetration.

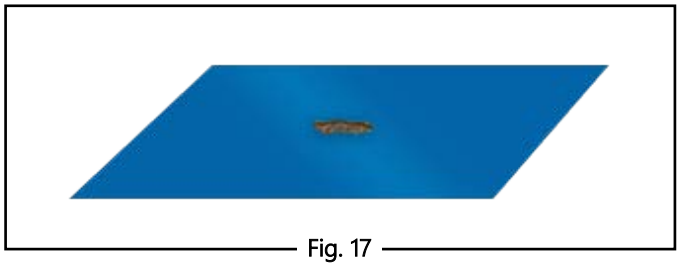


Fig. 17

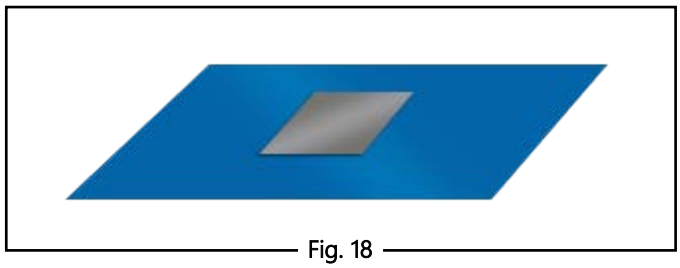


Fig. 18

2.1. When installing reinforcing steel and utilities, in addition to the placement of concrete, take precaution to protect VaporBlock®. Carelessness during installation can damage the most puncture–resistant membrane. Sheets of plywood cushioned with geotextile fabric temporarily placed on VaporBlock® provide for additional protection in high traffic areas including concrete buggies.

2.2. Use only brick-type or chair-type reinforcing bar supports to protect VaporBlock® from puncture.

2.3. Avoid driving stakes through VaporBlock®. If this cannot be avoided, each individual hole must be repaired.

2.4. To avoid penetrating VaporBlock® when installing screed supports, utilize non-penetrating supports such as the Mako® Screed Support-System (Fig. 18).

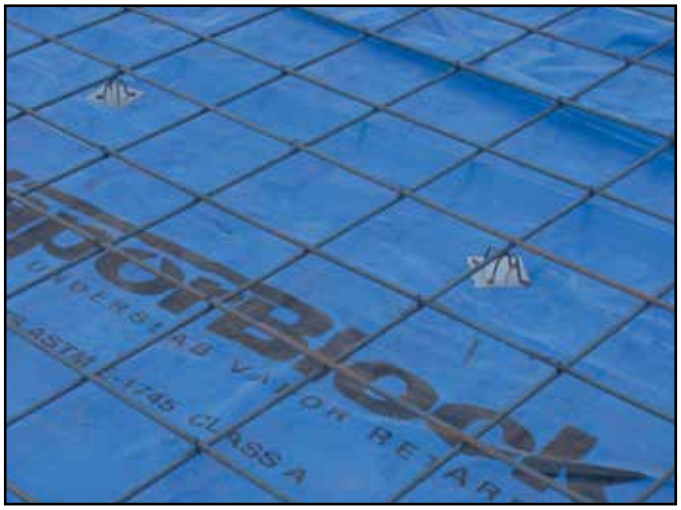
2.5. If a cushion or blotter layer is required in the design between VaporBlock® and the slab, additional care should be given if sharp crushed rock is used. Washed rock will provide less chance of damage during placement. Care must be taken to protect blotter layer from precipitation before concrete is placed.

2.6. VaporBlock® Vapor Barrier can be identified on site as blue in color printed in black ink with the following logo and classification listing (Fig. 19).

Fig. 18

VaporBlock®
UNDERSLAB VAPOR RETARDER

Fig. 19



* Patent Pending

Note: To the best of our knowledge, unless otherwise stated, these are typical property values and are intended as guides only, not as specification limits. Chemical resistance, odor transmission, longevity as well as other performance criteria is not implied or given and actual testing must be performed for applicability in specific applications and/or conditions. VIAFLEX MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage. Limited Warranty available at www.viaflex.com

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