

# EQUAL PRODUCT APPROVAL REQUEST FORM (U.S.)

Project Name: Logan UT Seminary Building Request Number: 01

TO: FFKR Architects

FROM: DWA Construction

BID DATE: 12-5-2024

A proposed product is not legally approved and cannot legally be included in a bid or used in the Work until it appears in an Addendum or other Contract Modification as defined in the General Conditions. See Instructions To Bidders Paragraph 3.C, General Conditions, and Section 016000.

## PROPOSED EQUAL PRODUCT:

Specification Section: 03 3000-8

Specified Products: Under Slab Vapor Barrier

Proposed Product: Viper II 15 Mill Class A Vapor Barrier

The Undersigned certifies:

1. Proposed equal product has been fully investigated and determined to be equal or superior in all respects to specified products.
2. Same warranty will be furnished for proposed equal product as for specified products.
3. Same maintenance service and source of replacement parts, as applicable, is available.
4. Proposed equal product will have no adverse effect on other trades and will not affect or delay progress schedule.
5. Proposed equal product does not affect dimensions and functional clearances.

## ATTACHMENTS:

Include the following attachments -

1. Copy of the Project Manual Section where the proposed equal product would be specified, rewritten or red-lined to include any changes necessary to correctly specify the proposed equal product. Identify completely changes necessary to the original Project Manual Section.
2. Copies of details, elevations, cross-sections, and other elements of the Project Drawings redone as necessary to show changes necessary to accommodate proposed equal product. Identify completely the changes from the original Drawings.
3. Complete product literature and technical data, installation and maintenance instructions, test results, and other information required to show complete conformance with requirements of the Contract Documents.

**SIGNED:** \_\_\_\_\_

Printed Name Alex Willden

Company DWA construction

Address 76 W 2400 N

City, State, Zip Code Logan, UT, 84321

Telephone 435-752-6860 Fax \_\_\_\_\_

**REVIEW COMMENTS:**

Accepted. See Addenda Number #2.

Submission not in compliance with instructions. Respond to attached comments and resubmit.

Proposed equal product not acceptable. Use specified products.

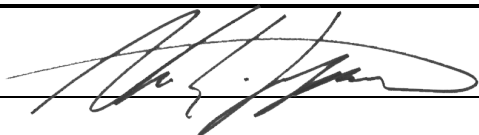
Not Reviewed. Submission received too late. Use specified products.

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**ADDITIONAL COMMENTS:**

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BY:



DATE:

12.3.24

## 2.3 VAPOR RETARDERS

- A. Sheet Vapor Retarder, Class A: ASTM E1745, Class A, except with maximum water-vapor permeance of 0.01; not less than 10 mils thick. Include manufacturer's recommended adhesive or pressure-sensitive tape.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Fortifiber Building Systems Group.
    - b. Raven Industries, Inc.
    - c. Reef Industries, Inc.
    - d. Stego Industries, LLC.
    - e. W.R. Meadows, Inc.

## 2.4 CURING MATERIALS

- A. Membrane Curing:
1. Clear water-based, ready-to use membrane curing agent that cures freshly placed concrete, forming effective barrier against moisture loss from concrete surface.
  2. Design Criteria:
    - a. Exterior Concrete:
      - 1) Dissipating or non-dissipating membrane curing agent.
    - b. Interior Concrete:
      - 1) Dissipating membrane curing agent only.
      - 2) Gradually dissipate after twenty-eight (28) days without leaving stain or discoloring concrete surface.
    - c. VOC-compliant compound.
    - d. Meet requirements of ASTM C309 and AASHTO M 148, Type 1 or 1-D, Class B.
    - e. Interior concrete: containing no mineral spirits, naphtha, or other components detrimental to finish flooring installation.
    - f. Maintain ninety-five (95) percent of mix water present in concrete mass after application.
  3. Horizontal and Vertical Cast-In-Place Structural Concrete:
    - a. Acceptable Products.
      - 1) Exterior Concrete:
        - a) Clear Cure J7WB by Dayton Superior Corporation, Miamisburg, OH [www.daytonsuperior.com](http://www.daytonsuperior.com).
        - b) Clear Water Resin by Right Point, Dekalb, IL [www.rightpointe.com](http://www.rightpointe.com).

**VAPOR RETARDERS**DIVISION  
033000, 072600

15-MIL "CLASS A" VAPOR BARRIER

**PRODUCT NAME**

Viper® II 15-mil "Class A" Under-Slab Vapor Barrier

**MANUFACTURER****ISI BUILDING PRODUCTS**  
401 Truck Haven Road  
East Peoria, IL 61611  
866.698.6562 / www.isibp.com**PRODUCT DESCRIPTION****BASIC USE**

Viper II 15-mil is a unique high strength polyolefin-based under-slab vapor barrier specifically designed for preventing moisture migration through concrete slabs-on-grade. Viper II 15-mil reduces water vapor emission transfer and moisture migration from entering the building envelope on commercial, industrial and residential applications. Viper II 15-mil controls condensation, mold, mildew, degradation and prevents costly flooring failures and damage to moisture sensitive furnishings within a building's interior. Viper II 15-mil may be used to reduce radon and methane gas migration and is resistant to other adverse soil conditions.

**COMPOSITION & MATERIALS**

Viper II 15-mil is manufactured using the latest generation of prime virgin (non-recycled) polyolefin resin, constructed in a multi-layer plastic extrusion process and engineered with physical properties that maintain long-term performance. The multi-layer extrusion process creates an excellent balance of high puncture and tensile strength while maintaining very low water vapor permeance characteristics. This product maintains (long-term) high performance and will not biodegrade/decompose when exposed to various soil types and below slab conditions.

**SIZE**

Standard Size: 14' x 140' rolls

**WEIGHT**

Approximately 140 lbs per roll

**BENEFITS**

- Manufactured using multi-layer extrusion technology from virgin polyolefin resin
- Maintains long-term performance after exposure to adverse soil conditions
- Exceeds ASTM E 1745 "Class A" guidelines
- High puncture and tensile strength
- Greatly reduces moisture migration through slab-on-grade applications

**TECHNICAL DATA****APPLICABLE STANDARDS****American Society for Testing & Materials (ASTM)**

**ASTM E 1745** Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs

**ASTM E 154** Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls or as Ground Cover

**ASTM D 1709** Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method

**ASTM D 882** Standard Test Method for Tensile Properties of Thin Plastic Sheeting

**ASTM F 1249** Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor

**ASTM E 96** Standard Test Methods for Water Vapor Transmission of Materials

**ASTM E 1643** Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs

**ACI 302.2R-06** Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials

NOTE: All Viper II 15-mil testing is done by accredited, third-party testing agencies following stringent industry guidelines and testing standards.

**ENVIRONMENTAL CONSIDERATIONS**

Viper II 15-mil can aid in controlling soil gas and poisons such as methane and radon.

**PHYSICAL PROPERTIES**

Viper II 15-mil exceeds all ASTM E 1745 "Class A" requirements for under-slab vapor retarders.

**INSTALLATION****SUB-GRADE PREPARATION**

Level and tamp or roll granular base as specified by the architectural or structural drawings.

**VAPOR BARRIER PLACEMENT**

Unroll Viper 15-mil with the longest dimension parallel with the direction of the pour. Unfold to full width.

Extend Viper 15-mil over footings and seal to foundation wall, grade beam or slab at an elevation consistent with the top of the slab or terminate at impediments, such as water stops or dowels. Use Viper Double Bond Tape or a combination of Viper Double Bond Tape and Viper Vapor Tape at such terminations.

## SEAMS AND PENETRATIONS

Seal around pipes, support columns, or any other penetrations, with Viper VaporPatch, VaporCheck Mastic, or at a minimum, a combination of Viper II 15-mil and Viper Vapor Tape. Doing so creates a monolithic membrane between the surface of the slab and moisture sources below.

Holes or openings through Viper II 15-mil should be effectively sealed with Viper Vapor Tape, Viper VaporPatch or VaporCheck Mastic to maintain the integrity of the vapor barrier. Overlap joints a minimum of six inches. Seal overlap together with Viper Vapor Tape and/or Viper Double Bond Tape.

## PROTECTION

When installing reinforcing steel and utilities, in addition to the placement of concrete, take precaution to protect Viper II 15-mil. Carelessness during installation can damage the most puncture-resistant vapor barriers.

Avoid driving stakes through Viper II 15-mil. If this cannot be avoided, each individual hole must be repaired.

If a cushion or blotter layer is required in the design between the vapor barrier and the slab, additional care should be taken, especially if sharp crushed rock is used. Washed rock will provide less chance of damage during placement.

These are general installation instructions. Instructions on architectural or structural drawings should be reviewed and followed. Detailed installation instructions can be obtained by calling the manufacturer at 866.698.6562 or visiting [www.isibp.com](http://www.isibp.com).

## WARRANTY

Warranty information can be obtained by calling the manufacturer at 866.698.6562 or visiting [www.isibp.com](http://www.isibp.com).

## MAINTENANCE

Requires no maintenance once installed.

## TECHNICAL SERVICES

Technical information and detailed test results can be obtained by calling the manufacturer at 866.698.6562.

## FILING SYSTEMS

Additional information can be obtained by calling the manufacturer at 866.698.6562 or visiting [www.isibp.com](http://www.isibp.com).

PROPERTIES TEST PROCEDURE (INDEPENDENT TEST FACILITY)	TEST METHOD APPLICABLE STANDARDS	RESULTS IP UNITS
THICKNESS (NOMINAL)	N/A	15-mil
WEIGHT	N/A	140 lbs
CLASSIFICATION	ASTM E 1745	EXCEEDS CLASS A, B, C
PUNCTURE RESISTANCE	ASTM D 1709 METHOD B	3,485 grams
PUNCTURE RESISTANCE	ASTM E 154 SEC. 10	90 lbs
TENSILE STRENGTH	ASTM E 154 SEC. 9 (D882)	57 lbf/in
OPERATING TEMPERATURE RANGE	N/A	-70° F to 180° F
WATER VAPOR PERMEANCE (NEW MATERIAL)	ASTM F 1249	0.0043 perms*
WATER VAPOR TRANSMISSION RATE (WVTR)	ASTM F 1249	0.0030 grains/(ft <sup>2</sup> *hr)
WATER VAPOR PERMEANCE (AFTER WETTING, DRYING AND SOAKING)	ASTM E 154 SEC. 8 (ASTM F 1249)	0.0046 perms*
WATER VAPOR PERMEANCE (AFTER HEAT CONDITIONING)	ASTM E 154 SEC. 11 (ASTM F 1249)	0.0033 perms*
WATER VAPOR PERMEANCE (AFTER LOW TEMPERATURE CONDITIONING)	ASTM E 154 SEC. 12 (ASTM F 1249)	0.0046 perms*
WATER VAPOR PERMEANCE (AFTER SOIL ORGANISM EXPOSURE)	ASTM E 154 SEC. 13 (ASTM F 1249)	0.0039 perms*
WATER VAPOR PERMEANCE (NEW MATERIAL)	ASTM E 96 PROCEDURE B	0.01 perms*
WATER VAPOR TRANSMISSION	ASTM E 96 PROCEDURE B	0.007 grains/(ft <sup>2</sup> *hr)
CHEMICAL RESISTANCE	ASTM E 154	UNAFFECTED
LIFE EXPECTANCY	ASTM E 154	INDEFINITE
RADON DIFFUSION COEFFICIENT	K124-02-95	2.4 x 10 <sup>-11</sup> m <sup>2</sup> /sec
METHANE PERMEANCE	ASTM D1434	3.17E <sup>-14</sup> mol/m <sup>2</sup> *s*Pa

\*grains/(ft<sup>2</sup>\*hr\*inHg)

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AN AFFILIATE OF MEYER ENTERPRISES, LLC  
401 TRUCK HAVEN ROAD, EAST PEORIA, IL 61611  
PHONE: 309.698.0062 / FAX: 309.698.0065



# VIPER<sup>®</sup>

## VAPOR TAPE

WHITE POLYETHYLENE SEAM TAPE

VERSION 20.0

## VAPOR RETARDERS

DIVISION  
033000, 072600

### PRODUCT NAME

Viper• Vapor Tape White Polyethylene Seam Tape

### MANUFACTURER

#### ISI BUILDING PRODUCTS

401 Truck Haven Road  
East Peoria, IL 61611  
866.698.6562 / www.isibp.com

### PRODUCT DESCRIPTION

#### BASIC USE

Viper Vapor Tape is a low-residue, aggressive adhesive seam tape designed for seaming, splicing, sealing, patching and hanging plastic-type vapor barrier materials. Viper Vapor Tape has a low water vapor permeance, which helps in maintaining superior moisture/vapor resistance at vapor barrier seams. Viper Vapor Tape bonds well to most surfaces over a wide temperature range.

#### COMPOSITION & MATERIALS

Viper Vapor Tape is a polyethylene film, single coated with a rubber pressure sensitive adhesive. Viper Vapor Tape releases easily off of the roll, which prevents stretching and curling during and after installation. Viper Vapor Tape is designed and manufactured with a serrated edge to facilitate easy roll tear off during installation.

#### SIZE

Standard Sizes: 2" x 180', 3" x 180', 4" x 180'

#### WEIGHT

Approximately 2.5 lbs per roll, 30 lbs per case

#### BENEFITS

- Aggressive adhesion
- Serrated edge for ease of installation
- Very low water vapor permeance
- Struggle free release from roll
- Suitable for all plastic-type vapor barriers
- Four inch wide rolls for more area of adhesion

### TECHNICAL DATA

#### APPLICABLE STANDARDS

##### *American Society for Testing & Materials (ASTM)*

ASTM E 1745 Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs

ASTM E 1643 Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs

ASTM D 1000 Standard Test Methods for Pressure-Sensitive Adhesive-Coated Tapes Used for Electrical and Electronic Applications

ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials

PSTC 101 International Standard for Peel Adhesion of Pressure Sensitive Tape

#### ENVIRONMENTAL CONSIDERATIONS

When sealing vapor barrier overlaps, Viper Vapor Tape can aid in controlling soil gas and poisons such as methane and radon.

### INSTALLATION

#### SUB-GRADE PREPARATION

Level and tamp or roll granular base as specified by the architectural or structural drawings.

#### VAPOR BARRIER PLACEMENT

Unroll Viper Vapor Barrier with the longest dimension parallel with the direction of the pour. Unfold to full width.

Lap vapor barrier over the footings and seal to the vertical foundation walls with either Viper Vapor Tape, Viper Double Bond Tape, Viper VaporPatch or VaporCheck Mastic.

#### SURFACE PREPARATION

When installing Viper Vapor Tape, Viper Double Bond Tape, Viper Vapor Tape or VaporCheck Mastic, make sure the area of adhesion is free from dust, dirt and moisture to allow maximum adhesion.

#### SEAMS AND PENETRATIONS

Seal around pipes, support columns or any other penetration with Viper VaporPatch, VaporCheck Mastic or at minimum a combination of the Viper Vapor Barrier and Viper Vapor Tape. Doing so creates a monolithic membrane isolating the surface of the slab from moisture sources below.

Holes or openings through Viper Vapor Barrier should be effectively sealed with Viper Vapor Tape, Viper VaporPatch or VaporCheck Mastic to maintain the integrity of the vapor barrier. Overlap joints a minimum of six inches. Seal overlap together with Viper Vapor Tape and/or Viper Double Bond Tape.

## VIPER VAPORPATCH INSTALLATION

1. Viper VaporPatch is available in 12" x 50' rolls. Cut patch to desired length using "dashed" guideline (printed between each pipe diameter template).
2. Cut an "X" through Viper VaporPatch to fit the diameter of the pipe (Grid ranges from one to eight inches).
3. Slide Viper VaporPatch tightly over pipe penetration.
4. Peel off the release paper (exposing the all-weather adhesive) and firmly apply to the vapor barrier and pipe.
5. Seal off any exposed area with VaporCheck Mastic or Viper Vapor Tape.

These are general installation instructions. Instructions on architectural or structural drawings should be reviewed and followed. Detailed installation instructions can be obtained by calling the manufacturer at 866.698.6562 or visiting [www.isibp.com](http://www.isibp.com).

## WARRANTY

Warranty information can be obtained by calling the manufacturer at 866.698.6562 or visiting [www.isibp.com](http://www.isibp.com).

## MAINTENANCE

Requires no maintenance once installed.

## TECHNICAL SERVICES

Technical information and detailed test results can be obtained by calling the manufacturer at 866.698.6562.

## FILING SYSTEMS

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PROPERTIES TEST PROCEDURE (INDEPENDENT TEST FACILITY)	TEST METHOD APPLICABLE STANDARDS	RESULTS IP UNITS
ROLL SIZES	N/A	2" x 180', 3" x 180', 4" x 180'
TOTAL THICKNESS (NOT INCLUDING LINER)	N/A	7.5-mil
ADHESIVE THICKNESS (RUBBER)	N/A	3.0-mil
PEEL ADHESION: INITIAL TO S.S. (20 MIN @ RT)	PSTC 101 MOD.	60 oz/in
BACKING ADHESION: INITIAL TO BACKING (20 MIN @ RT)	PSTC 101 MOD.	35 oz/in
TENSILE STRENGTH	ASTM D 1000	24 lbs/in
ELONGATION	ASTM D 1000	70%
WATER VAPOR PERMEANCE	ASTM E 96	<0.001 perms
FLAME SPREAD	ASTM E 84	10 (Class A)
SMOKE DEVELOPED	ASTM E 84	35 (Class A)
OPERATING TEMPERATURE RANGE	N/A	32° F to 160° F

*Note: Recommended application temperature to achieve best results is 40°F (4°C) or above.*

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