



VIPER[®] CS

CRAWL SPACE VAPOR BARRIERS



ENGINEERED & TESTED

FOR THE LIFETIME

OF YOUR CRAWL SPACE



VIPER® CS

INDEX

ARTICLES AND INFORMATION

HEALTHY CRAWL SPACES	4
CHOOSING A VAPOR BARRIER	6

HIGH PERFORMANCE VAPOR BARRIERS

VIPER CS 6.5-MIL	8
VIPER CS 10-MIL	10
VIPER CS 16-MIL	12
PRODUCT SUMMARY	14

ENHANCED VAPOR BARRIERS

VIPER CSX	16
INSUL-BARRIER	17

ACCESSORIES

VIPER TAPE	18
VIPER DOUBLE BOND	18
VIPER CS PIER WRAP	19
VIPER CS PINS	19

RESOURCES

TRAINING	20
PROJECT GALLERY	20
INSTALL GUIDE	20
LAYOUT GUIDE	20



THE IMPORTANCE OF

HEALTHY CRAWL SPACES

The crawl space is typically viewed as dark and uncomfortable with the potential to encounter odd smells and hair-raising pests. For this reason, many homeowners choose the “out of sight, out of mind” approach and pay little attention to crawl space conditions or maintenance. Despite the temptation to steer clear of the area, research shows crawl space health is critical to the overall well-being of a home and its occupants inside.

According to studies, up to 50% of indoor air is filtered through the crawl space. Poorly designed or maintained crawl spaces can breed high relative humidity, mold, mildew and dust mites. If left unchecked, these problems can degrade structural components, damage insulation integrity and lower occupant comfort leading to a host of potential financial and medical issues.

Unsealed or poorly maintained crawl spaces can also create pathways for radon to enter into the home.



Radon is an odorless radioactive gas formed from the natural breakdown of uranium in soil, rock and water. According to the EPA, radon is the second leading cause of lung cancer. Properly encapsulated crawl spaces can mitigate radon problems by creating a barrier to entry for soil gases.

Building science clearly shows crawl spaces are an integral part of a building’s structural and envelope system. By maintaining a healthy crawl space, homeowners can avoid costly repairs, ensure good indoor air quality and improve the energy efficiency of their homes.



Up to 50% of the air you breathe in your home is from your crawl space.

CHOOSING THE RIGHT VAPOR BARRIER



Quality encapsulation projects start with a high-performance vapor barrier.

To achieve your moisture control objectives, it is important to know what to look for in a vapor barrier.

A properly designed encapsulation system controls moisture and soil gas intrusion, facilitating a healthy crawlspace environment. Professional contractors know each home is unique and may require different strategies and components to create an optimal system. They also know quality encapsulation jobs start with a high-performance vapor barrier. To achieve moisture and soil gas control objectives, it is vital to know what to look for when choosing a vapor barrier.

ENGINEERED

While standard clear or black poly membranes are commonly used in construction applications due to their low cost, the challenging crawl space environment requires more durable and resilient options. Professionals should seek vapor barriers that can withstand foot traffic during and after install, are rated for contact with soil and will not deteriorate over time.



Viper CS is engineered using premium virgin resin without any recycled content. The resin is then converted into strands of polyethylene and woven together in a tight hatch pattern. The cross-woven membrane is coated with proprietary extrusion layers. The result is a liner that resists punctures and tears during install, does not emit odors and is for long-term performance.

TESTED

When evaluating vapor barrier options, a common mistake is to assume thicker is better. This is not always the case. Since membranes can be engineered with various additives, layers and configurations — thickness should not be the primary evaluation metric. Rather, look for products tested with industry standards for key performance characteristics and compare those results.



Viper CS products are third-party tested for puncture resistance, tear strength, water vapor permeance and radon resistance. High marks on these critical performance specifications give **Viper CS** “Class A” status according to ASTM E 1745 (*Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs*).

GUARANTEED

Given the time, labor and expense of completing a crawl space encapsulation project, choosing a high-performance vapor barrier that will last is crucial. Ensuring the vapor barrier will provide long-lasting protection will not only bring peace of mind, but will save money and time in the long run.



Viper CS comes with a lifetime warranty and is guaranteed to last as long as the structure it was designed to protect. With millions of square feet installed across North America and a track record spanning decades, **Viper CS** is top-of-class for proven performance.

HIGH-PERFORMANCE VAPOR BARRIERS

Viper CS 6.5-mil

LIGHTWEIGHT & ECONOMICAL



WEIGHTS & MEASURES

Roll Sizes 6' x 100', 12' x 100', 4' x 200'

Weight Approximately 30 lbs/msf

Rolls/Pallet 25

Special Order Clear Available


DATA HIGHLIGHT


Where To Use


LIGHT-DUTY APPLICATIONS


Viper CS 6.5-mil is an excellent replacement for standard 6-mil poly. Providing higher strength than blown films at an economical price point, Viper CS 6.5-mil effectively controls moisture in the crawl space and will not break down over time.




WEIGHT **30 lbs/MSF**


TEAR RESISTANCE **117 LBF**


PUNCTURE RESISTANCE **255 LBF**


PERMEANCE RATING **ASTM E 1745 CLASS A**

6.5
MIL

DOCUMENTS & DOWNLOADS

Technical Data



Safety Data



Comparative Data



Lifetime Warranty



HIGH-PERFORMANCE VAPOR BARRIERS

Viper CS 10-mil

BALANCED PERFORMANCE



WEIGHTS & MEASURES

Roll Sizes 6' x 100', 12' x 100', 4' x 200'

Weight Approximately 38 lbs/msf

Rolls/Pallet 25

Special Order Clear Available

DATA HIGHLIGHT

Where To Use

MODERATE-DUTY APPLICATIONS

Viper CS 10-mil is designed for applications with moderate foot traffic. Providing a nice balance between cost and performance, Viper CS 10-mil prevents punctures and tears while protecting the space from vapor intrusion.



WEIGHT **38 lbs/MSF**



TEAR RESISTANCE **138 LBF**



PUNCTURE RESISTANCE **626 LBF**



PERMEANCE RATING **ASTM E 1745 CLASS A**

10
MIL

DOCUMENTS & DOWNLOADS

Technical Data



Safety Data



Comparative Data



Lifetime Warranty



HIGH-PERFORMANCE VAPOR BARRIERS

Viper CS 16-mil

EXTREME STRENGTH



WEIGHTS & MEASURES

Roll Sizes 12' x 100'

Weight Approximately 55 lbs/msf

Rolls/Pallet 25

DATA HIGHLIGHT

Where To Use

HEAVY-DUTY APPLICATIONS

Viper CS 16-mil is the best choice for applications with heavy foot traffic. Offering our highest tear resistance and durability, Viper CS 16-mil is well-suited for demanding environments both during and after install.



WEIGHT **55 lbs/MSF**



TEAR RESISTANCE **242 LBF**



PUNCTURE RESISTANCE **594 LBF**



PERMEANCE RATING **ASTM E 1745 CLASS A**

16
MIL

DOCUMENTS & DOWNLOADS

Technical Data



Safety Data



Comparative Data



Lifetime Warranty



HIGH-PERFORMANCE VAPOR BARRIERS

VIPER CS 6.5-MIL

Lightweight & Economical

COST
\$
WEIGHT
30 LBS/MSF
TEAR
117 LBF
PUNCTURE
255 LBF
PERMEANCE
CLASS A
VIRGIN RESIN
✓
FIRE RATING
CLASS A

LIGHT-DUTY APPLICATIONS

- Higher strength than blown films
- Economical price point

VIPER CS 10-MIL

Balanced Performance

COST
\$\$
WEIGHT
38 LBS/MSF
TEAR
138 LBF
PUNCTURE
626 LBF
PERMEANCE
CLASS A
VIRGIN RESIN
✓
FIRE RATING
CLASS A

MODERATE-DUTY APPLICATIONS

- Designed for moderate foot traffic
- Balanced cost versus performance

VIPER CS 16-MIL

Extreme Strength

COST
\$\$\$
WEIGHT
55 LBS/MSF
TEAR
242 LBF
PUNCTURE
594 LBF
PERMEANCE
CLASS A
VIRGIN RESIN
✓
FIRE RATING
CLASS A

HEAVY-DUTY APPLICATIONS

- Best choice for heavy foot traffic
- Highest durability



CROSS-WOVEN



TEAR RESISTANT



PUNCTURE RESISTANT



ODOR FREE

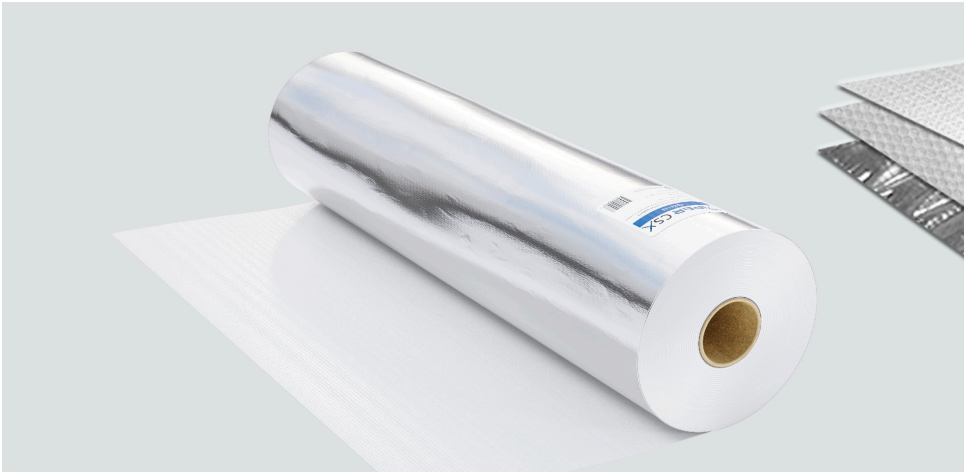


MOISTURE BARRIER



RADON BARRIER

ENHANCED VAPOR BARRIERS



Viper CSX Crawl Space Vapor Barrier

Where To Use

SUPERIOR AESTHETIC

For applications requiring a premium look, Viper CSX provides a crisp, bright white finish. Featuring a tough cross-woven skin and a flexible closed-cell foam core, Viper CSX lays flat and minimizes wrinkles.



DOCUMENTS & DOWNLOADS

Technical Data

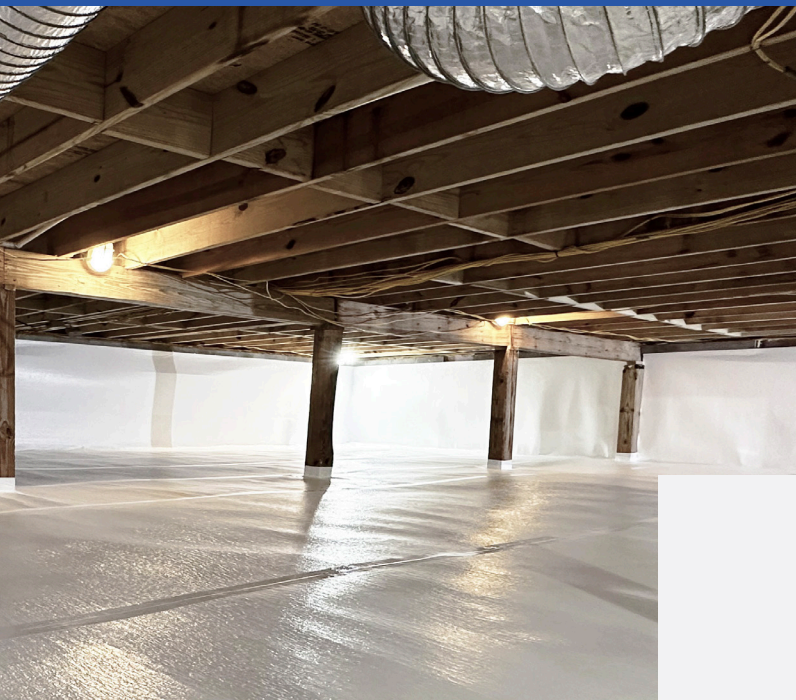
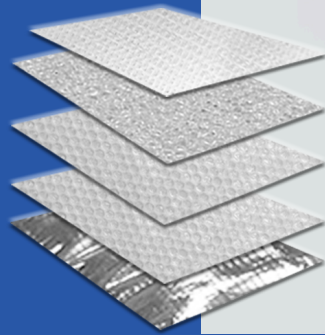


Safety Data



Insul-Barrier

Insulated
Vapor Barrier



Where To Use

INSULATION + VAPOR BARRIER

Insul-Barrier provides both a vapor barrier and insulation for crawl space walls and floors where a thermal break is needed. Easier to handle than rigid foam board and contains no itchy, harmful fibers.

DOCUMENTS & DOWNLOADS

Technical Data



Safety Data



CRAWL SPACE ACCESSORIES

Viper Vapor Tape



Viper Vapor Tape is a white polyethylene coated film with an aggressive adhesive designed for seaming, splicing, sealing and patching vapor barrier materials.

Viper Double Bond



Viper Double Bond Tape is a double-sided butyl tape used for seaming and as a gasket material between the vapor barrier membrane and foundation walls.

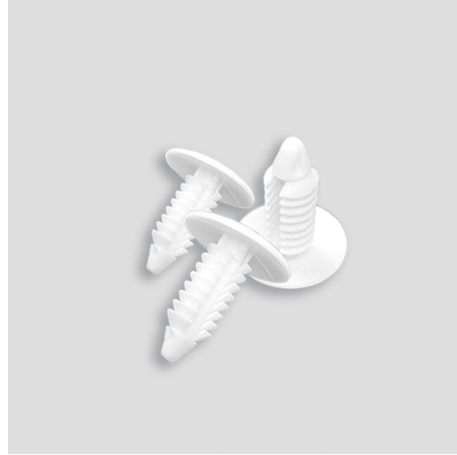


CS Pier Wrap



Viper CS Pier Wrap features our signature cross-woven configuration, conveniently sized for pipes, penetrations, piers and structural supports.

CS Liner Pins



Viper CS Liner Pins are designed to fasten vapor barrier materials to masonry walls, providing strong mechanical attachment in concrete block, brick or stone.



RESOURCES



Training

Enter your information and we'll find opportunities nearest you.



Project Gallery

Browse our Viper CS gallery of professional results nationwide.



Install Guide



Download for the detailed preparation, planning and the installation of Viper CS.

Layout Sheet



Download the layout sheet for measurements and quantities on your next Viper CS project.



To promote best practices and professional grade installs, ISI supports a nationwide distribution network and year-round training opportunities.

PROS CHOOSE QUALITY

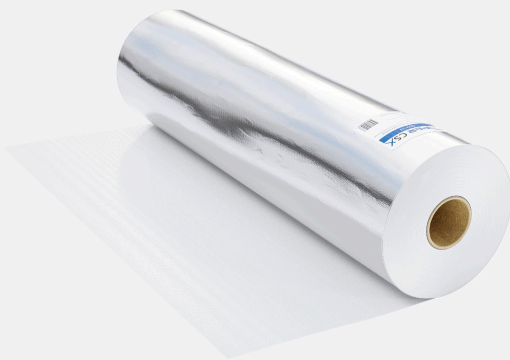
VIPER CS

HIGH-PERFORMANCE VAPOR BARRIERS



VIPER CSX

SUPERIOR AESTHETIC



INSUL-BARRIER

INSULATION + VAPOR BARRIER





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