



VIPER® CS II

10-MIL CLASS A

VAPOR RETARDERS

DIVISION

03300, 07260

1 PRODUCT NAME

PRODUCT NAME: VIPER® CS II 10-MIL
Crawl Space Vapor Barrier

2 MANUFACTURER

ISI BUILDING PRODUCTS

401 Truck Haven Road, East Peoria Illinois 61611
Phone: 866.698.6562 / Fax: 309.698.0065 / www.isibp.com

3 PRODUCT DESCRIPTION

3.1 BASIC USE

Viper CS II 10-mil is a high performance crawl space vapor barrier designed to prevent moisture migration from the soil into the crawl space. Viper CS II 10-mil helps guard against mold, mildew, allergens, fungus, radon gas, methane gas, heat loss due to damp insulation, wood rot and overall degradation of the crawl space.

3.2 COMPOSITION & MATERIALS

Viper CS II 10-mil is a white, multi-layer, plastic extrusion manufactured from prime virgin polyolefin resins.

3.3 SIZE

Standard Sizes: 1,400 sq. ft. rolls (14' x 100')
700 sq. ft. rolls (7' x 100')

3.4 WEIGHT

85 lbs. per 1,400 sq. ft.

4 TECHNICAL DATA

4.1 APPLICABLE STANDARDS

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 D 638 Standard Test Method for Tensile Properties of Plastics

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 Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs

4.2 ENVIRONMENTAL CONSIDERATIONS

Viper CS II 10-mil can aid in reducing soil gas and poisons such as methane and radon.

4.3 PHYSICAL PROPERTIES

Viper CS II 10-mil exceeds all **ASTM E 1745** Class A, B and C requirements for under-slab vapor retarders.

5 INSTALLATION

PLACEMENT

5.1 If sump pump is present or is to be installed, slightly slope grade in the direction of the sump pit to allow for proper drainage. Tamp or roll sub-base or granular base.

5.2 Unroll Viper CS II 10-mil in correlation with the longest dimension of the crawl-space area. Unfold to twelve foot width.

5.3 Install Viper CS II 10-mil by means of Viper Double Bond Tape, mechanical fasteners, termination bar and/or high grade construction adhesive to the upper portion of the block/concrete wall. Leave at least a three inch gap from the sill to the top of the Viper CS II 10-mil for future termite inspection. Seal the top edge of Viper CS II 10-mil with urethane caulk.

5.4 Holes or openings through Viper CS II 10-mil should be effectively sealed with all weather Viper Vapor Tape, white polyethylene tape, Viper Vapor Patch and/or mastic to maintain the integrity of the vapor barrier. Overlap joints a minimum of six inches. Seal overlap together with all weather Viper Vapor Tape or white polyethylene tape.

PROTECTION

5.4 Holes or openings through Viper CS II 10-MIL should be effectively sealed with all weather Viper Vapor Tape, white polyethylene tape, Viper Vapor Patch and/or mastic to maintain the integrity of the vapor barrier. Overlap joints a minimum of six inches. Seal overlap together with all weather Viper Vapor Tape or white polyethylene tape.

PROTECTION

5.5 Proper care should be taken when installing Viper CS II 10-mil. Carelessness during installation can damage even the most puncture resistant vapor retarders.

5.6 Viper CS II 10-mil will help guard against possible punctures and tears present from rigorous construction traffic.

5.7 Avoid driving stakes through Viper CS II 10-mil. If this cannot be avoided, each individual hole must be repaired.

These are very general installation instructions. All installation instructions on architectural and/or structural drawings should be reviewed and followed. Detailed installation instructions can be obtained by calling our corporate office at 866.698.6562 or online at www.isibp.com.

6 AVAILABILITY AND COST

Viper CS II 10-mil is sold through construction supply houses across the United States and Canada.

Viper CS II 10-mil current cost information can be obtained by calling our corporate sales office at 866.698.6562.

7 WARRANTY

Warranty information can be obtained by calling our corporate office at 866.698.6562 or online at www.isibp.com.

8 MAINTENANCE

Requires no maintenance once installed.

9 TECHNICAL SERVICES

Technical information and detailed test results can be obtained by calling ISI Building Products toll free at 866.698.6562.

10 FILING SYSTEMS

Additional information can be obtained by calling our corporate office at 866.698.6562 or online at www.isibp.com.

PROPERTIES

TEST METHOD

RESULTS

THICKNESS (NOMINAL)	N/A	10-MIL	0.254 MM
WEIGHT (PER MSF)	N/A	85 LBS.	63.5 KG
CLASSIFICATION	ASTM E 1745	CLASS A, B, C	
TENSILE STRENGTH	ASTM D 882	55 LBF./IN. (MD)	25 KG
TENSILE STRENGTH	ASTM D 638	3017 PSI	20.8 MPA
PUNCTURE RESISTANCE	ASTM D 1709	2,747 GRAMS	
MAXIMUM USE TEMPERATURE	N/A	180° F	82° C
MINIMUM USE TEMPERATURE	N/A	-70° F	-57° C
WATER VAPOR PERMEANCE	ASTM F 1249	0.021 PERMS	0.014 PERMS
WATER VAPOR TRANSMISSION RATE (WTR)	ASTM F 1249	0.0084 GRAINS/(FT ² *HR)	0.006 GRAMS/(M ² *HR)

NOTE:

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