

**ATTACHMENT XII -
Vapor Barrier
Specifications**

PRODUCT DATA

MasterFormat: 07 13 00

W. R. MEADOWS®

SEALTIGHT®

NO. 714-F

PRECON®

SEPTEMBER 2017
(Supersedes January 2016)

Pre-Applied/Underslab Waterproofing Membrane

DESCRIPTION

PRECON is a composite sheet membrane comprised of a non-woven fabric, elastomeric membrane, and W. R. MEADOWS' exclusive, patented plasmatic core (U.S. Patent No. 7,179,761). The plasmatic core is a seven-layer matrix designed for toughness and provides the lowest water vapor transmission (WVT) rating on the market. Once concrete is poured against PRECON and the concrete cures, a mechanical bond forms that secures the concrete to the membrane.

USES

PRECON is used as a blindside membrane in vertical applications where access to the positive side is limited. The membrane can also be used for horizontal applications for underslab waterproofing and vaporproofing.

FEATURES/BENEFITS

- Provides a waterproof seal between the membrane and poured concrete wall.
- Helps prevent moisture migration into the structure.
- Reduces methane and radon gas intrusion.

PACKAGING

4' (1.2 m) wide x 50' (15.2 m) long rolls, one roll per carton.

STORAGE AND HANDLING

Store membrane cartons on pallets and cover if left outside. Keep materials away from sparks and flames.

SPECIFICATIONS

- ASTM E1993-98 - Standard Specification for Bituminous Water Vapor Retarders used in Contact with Soil or Granular Fill under Concrete Slabs.
- LARR Report 26023

APPLICATION

Surface Preparation ... Inspect all surfaces for any conditions detrimental to the proper completion of the work. Surfaces should be structurally sound. Remove debris or any other foreign material that could damage the membrane.

PRECON can be used with a caisson wall shoring system without the use of a drainage board, such as MEL-DRAIN™ from W. R. MEADOWS. W. R. MEADOWS recommends proper site drainage, but due to certain site conditions this sometimes cannot be done effectively. The decision to remove the drainage board should be at the discretion of the engineer. In situations where a drainage board is not applied, surface preparation is important. The substrate needs to be sound, solid, and smooth. Any gaps or voids >1" (25 mm) need to be grouted. When PRECON is used with MEL-DRAIN from W. R. MEADOWS, the system can bridge gaps <2" (50.8 mm). However, gaps >2" (50.8 mm) will need to be grouted.

CONTINUED ON REVERSE SIDE...

W. R. MEADOWS, INC.

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FORT WORTH, TX / BENICIA, CA / POMONA, CA
GOODYEAR, AZ / MILTON, ON / ST. ALBERT, AB

Application Method ... PRECON may be applied at temperatures down to 40° F (5° C); however, in less than ideal environments or marginal conditions, consider the use of PRECON LOW TEMP below 60° F (16° C). PRECON LOW TEMP can be used in temperatures down to 25° F (-4° C). MEL-PRIME™ from W. R. MEADOWS should be used to enhance the bond at the selvage edge when conditions warrant with both PRECON and PRECON LOW TEMP.

Prior to application of the blindside membrane, attach MEL-DRAIN™ rolled matrix drainage system from W. R. MEADOWS to lagging or soil retention system.

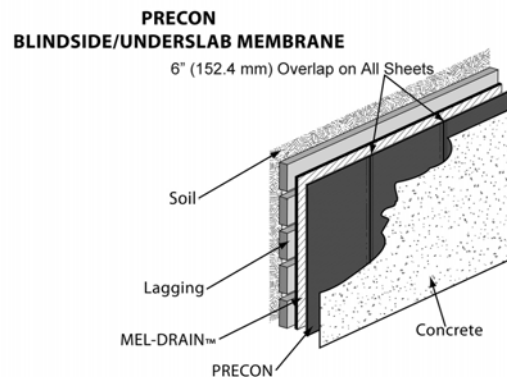
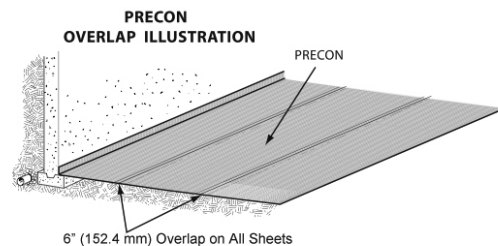
In vertical applications of PRECON, mechanically attach with fasteners every 12" (304.8 mm) across the top, within ½" (13 mm) of the top edge of the membrane. Install the membrane with the fabric side facing toward the concrete pour.

Remove release paper on 6" (152.4 mm) overlap. Apply membrane and roll press into place with a tile type roller.

End Laps ... Overlap membrane 6" (152.4 mm). Prior to overlap, apply BEM, HYDRALASTIC 836, or MEL-ROL® LIQUID MEMBRANE (two-component) from W. R. MEADOWS in area to be lapped. Roll press membrane into BEM, HYDRALASTIC 836, or MEL-ROL LIQUID MEMBRANE. At terminations of membrane, apply BEM, HYDRALASTIC 836, or MEL-ROL LIQUID MEMBRANE 12" (304.8 mm) wide centered over the termination and while still wet, embed 12" (31 cm) wide DETAIL FABRIC into the HYDRALASTIC 836 or MEL-ROL LIQUID MEMBRANE and roll press into place. Ensure that DETAIL FABRIC is centered over the termination with 6" (152.4 mm) on each side of lap edge. Apply additional HYDRALASTIC 836 on all terminations of DETAIL FABRIC.

Penetrations and Protrusions ... Detail around all horizontal and vertical penetrations using BEM or MEL-ROL LIQUID MEMBRANE (two-component) from W. R. MEADOWS. Apply BEM or MEL-ROL LIQUID MEMBRANE by forming a fillet around the pipe or protrusion, overlapping the fabric side of PRECON and the protrusion a minimum of 2.5" (64 mm). If the gap between the protrusion and the membrane is greater than ½" (13 mm), apply PRECON FABRIC TAPE over uncured BEM or MEL-ROL LIQUID MEMBRANE. All penetration and protrusion surfaces must be clean, rust-free, and sound prior to application of BEM or MEL-ROL LIQUID MEMBRANE.

*MEL-ROL LIQUID MEMBRANE is a two-component material, not to be confused with MEL-ROL LM.



For horizontal applications involving a cluster of penetrations, consider the use of HYDRALASTIC 836. Prior to application of HYDRALASTIC 836, prepare the surfaces of the penetrations as above and provide a block out using 2' x 4' (.6 x 1.2 m) lumber or other in order to create a "pitch pan" area to receive HYDRALASTIC 836.

Patching ... Prior to pouring, inspect membrane for punctures or damage and repair as necessary with HYDRALASTIC 836 and/or DETAIL FABRIC. (BEM or MEL-ROL LIQUID MEMBRANE may be used in place of HYDRALASTIC 836.) In addition, ensure the membrane is free of standing water and has been cleaned of any deleterious materials that will affect the bond of the concrete to the membrane.

Underslab Application ... Refer to ACI 302.1R-04: Chapter 4 – Site Preparation and Placing Environment for sub-grade preparation prior to PRECON placement.

PRECAUTIONS

Concrete should be poured within 60 days of membrane installation. For installations below 40° F (4° C), contact W. R. MEADOWS technical services. When using bar supports, use those with a flat bottom.

LEED INFORMATION

May help contribute to LEED credits:

- EA Credit 1: Optimize Energy Performance
- EAp2: Minimum Energy Performance
- EAc2: Optimize Energy Performance
- MRc9: Construction and Demolition Waste Management

For BIM assemblies, CAD details, most recent data sheet, further LEED information, and SDS, visit www.wrmeadows.com.

TECHNICAL DATA

Property	Test Method	PRECON Results
Color		Black
Thickness	ASTM D1000	73 mil (1.85 mm)
Low Temp Flexibility	ASTM D1970, 180° @ -20° F (-28.9° C)	Pass
Resistance to Hydrostatic Head	ASTM D5385-93	230' (70 m)
Elongation, Polymeric Membrane	ASTM D412-06	> 400%
Tensile Strength, Film	ASTM D882	9200 psi (63.4 MPa)
Crack Cycling	ASTM C836 @ -15° F (-26° C)	Pass
Puncture Resistance	ASTME 154	> 210 lb. (> 934 N)
Peel Adhesion to Concrete	ASTMD 903	10 lb./in (1754 N/m)
Moisture Vapor Transmission	ASTME 96B	0.0011 perms (0.0004 grains/ft. ² /hr) (0.007 gram/m ² /24 hr)
Resistance to Fungi in Soil	GSA-PBS 07115 – 16 Weeks	No Effect
Radon Transmittance (m/s)	k124/02/95	<3.0 x 10 ⁻⁹
Radon Coefficient (m2/s)	k124/02/95	<5.6 x 10 ⁻¹²

**LIMITED WARRANTY**

W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

Disclaimer

The information contained herein is included for illustrative purposes only, and to the best of our knowledge, is accurate and reliable. W. R. MEADOWS, INC. cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As W. R. MEADOWS, INC. has no control over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.

April 24, 2019

Guido Subotovsky
Joy Construction
40 Fulton Street 21st Floor
New York, NY 10038

Re: 1755 Watson Avenue
Bronx, NY
NYC/VCP Site Number: 18CVCP052X

Dear Mr. Subotovsky,

I have reviewed the following documents from the RIR Phase II Report (for the above referenced NYC/VCP Site Number):

- Table 1 – Soil Analytical Data Summary.
Prepared by: GEI Consultants, Inc. P.C.; Dated: February 2018.
- Table 2 – Groundwater Analytical Summary
Prepared by: GEI Consultants, Inc. P.C.; Dated: February 2018.
- Table 3 – Soil Vapor Analytical Summary
Prepared by: GEI Consultants, Inc. P.C.; Dated: February 2018.

The identified contaminants at the levels reported will not have an adverse effect on the waterproofing or vapor barrier properties of W. R. MEADOWS PRECON® Membrane – 73 mil; provided:

- All selected materials and installation procedures; meet the design intent of the project.
- All W. R. MEADOWS' recommended installation instructions/procedures are followed.
- All contaminated soil is completely removed and/or properly remediated; prior to the installation of the PRECON®.
- A fully functioning Passive Ventilation System (at a minimum) has been installed.

Should field sampling and/or field or laboratory testing be required, W. R. MEADOWS cannot be held responsible for any cost incurred if this product is used prior to receipt of that approval.

Sincerely,



Dianne Carey
Technical Director



STEGO® WRAP 20-MIL VAPOR BARRIER

A STEGO INDUSTRIES, LLC INNOVATION | VAPOR RETARDERS 07 26 00, 03 30 00 | VERSION: DEC 10, 2018

1. PRODUCT NAME

STEGO WRAP 20-MIL VAPOR BARRIER

2. MANUFACTURER

Stego Industries, LLC
216 Avenida Fabricante, Suite 101
San Clemente, CA 92672 USA
Sales, Technical Assistance
Ph: (877) 464-7834
contact@stegoindustries.com
www.stegoindustries.com



3. PRODUCT DESCRIPTION

USES: Stego Wrap 20-Mil Vapor Barrier is used as a below-slab vapor barrier.

COMPOSITION: Stego Wrap 20-Mil Vapor Barrier is a multi-layer plastic extrusion manufactured with only the highest grade of prime, virgin, polyolefin resins.

ENVIRONMENTAL FACTORS: Stego Wrap 20-Mil Vapor Barrier can be used in systems for the control of soil gases (radon, methane), soil poisons (oil by-products) and sulfates.

4. TECHNICAL DATA

TABLE 4.1: PHYSICAL PROPERTIES OF STEGO WRAP 20-MIL VAPOR BARRIER

PROPERTY	TEST	RESULTS
Under Slab Vapor Retarders	ASTM E1745 Class A, B & C – Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs	Exceeds Class A, B & C
Water Vapor Permeance	ASTM F1249 – Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor	0.0071 perms
Permeance After Conditioning [ASTM E1745 Sections 7.1.2 - 7.1.5]	ASTM E154 Section 8, F1249 – Permeance after wetting, drying, and soaking ASTM E154 Section 11, F1249 – Permeance after heat conditioning ASTM E154 Section 12, F1249 – Permeance after low temperature conditioning ASTM E154 Section 13, F1249 – Permeance after soil organism exposure	0.0088 perms 0.0081 perms 0.0084 perms 0.0077 perms
Methane Transmission Rate	ASTM D1434 - Standard Test Method for Determining Gas Permeability Characteristics of Plastic Film and Sheeting	152.2 GTR* (mL(STP)/m ² *day)
Radon Diffusion Coefficient	K124/02/95	9.9 x 10 ⁻¹² m ² /second
Puncture Resistance	ASTM D1709 – Test Method for Impact Resistance of Plastic Film by Free-Falling Dart Method	3500+ grams**
Tensile Strength	ASTM D882 – Test Method for Tensile Properties of Thin Plastic Sheeting	97.7 lbf/in
Thickness		20 mil
Roll Dimensions		width x length: area: 14' x 105' 1470 ft ²
Roll Weight		140 lb

Note: perm unit = grains/(ft²*hr*in-Hg)

*GTR = Gas Transmission Rate

**The material maxed out the testing equipment and did not fail at 3746 grams.

Continued...

Note – legal notice on page 2.

STEGO® WRAP 20-MIL VAPOR WRAP BARRIER

A STEGO INDUSTRIES, LLC INNOVATION | VAPOR RETARDERS 07 26 00, 03 30 00 | VERSION: DEC 10, 2018

5. INSTALLATION

UNDER SLAB: Unroll Stego Wrap 20-Mil Vapor Barrier over an aggregate, sand or tamped earth base. Overlap all seams a minimum of 6 inches and tape using Stego® Tape or Stego® Crete Claw® Tape. All penetrations must be sealed using a combination of Stego Wrap and Stego Accessories.

For additional information, please refer to Stego's complete installation instructions.

6. AVAILABILITY & COST

Stego Wrap 20-Mil Vapor Barrier is available through our network of building supply distributors. For current cost information, contact your local Stego distributor or Stego Industries' Sales Representative.

7. WARRANTY

Stego Industries, LLC believes to the best of its knowledge, that specifications and recommendations herein are accurate and reliable. However, since site conditions are not within its control, Stego Industries does not guarantee results from the use of the information provided herein. Stego Industries, LLC does offer a limited warranty on Stego Wrap. Please see www.stegoindustries.com/legal.

8. MAINTENANCE

None required.

9. TECHNICAL SERVICES

Technical advice, custom CAD drawings, and additional information can be obtained by contacting Stego Industries or by visiting the website.

Contact Number: (877) 464-7834

Website: www.stegoindustries.com

10. FILING SYSTEMS

- www.stegoindustries.com



(877) 464-7834 | www.stegoindustries.com

DATA SHEETS ARE SUBJECT TO CHANGE. FOR MOST CURRENT VERSION, VISIT WWW.STEGOINDUSTRIES.COM

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