

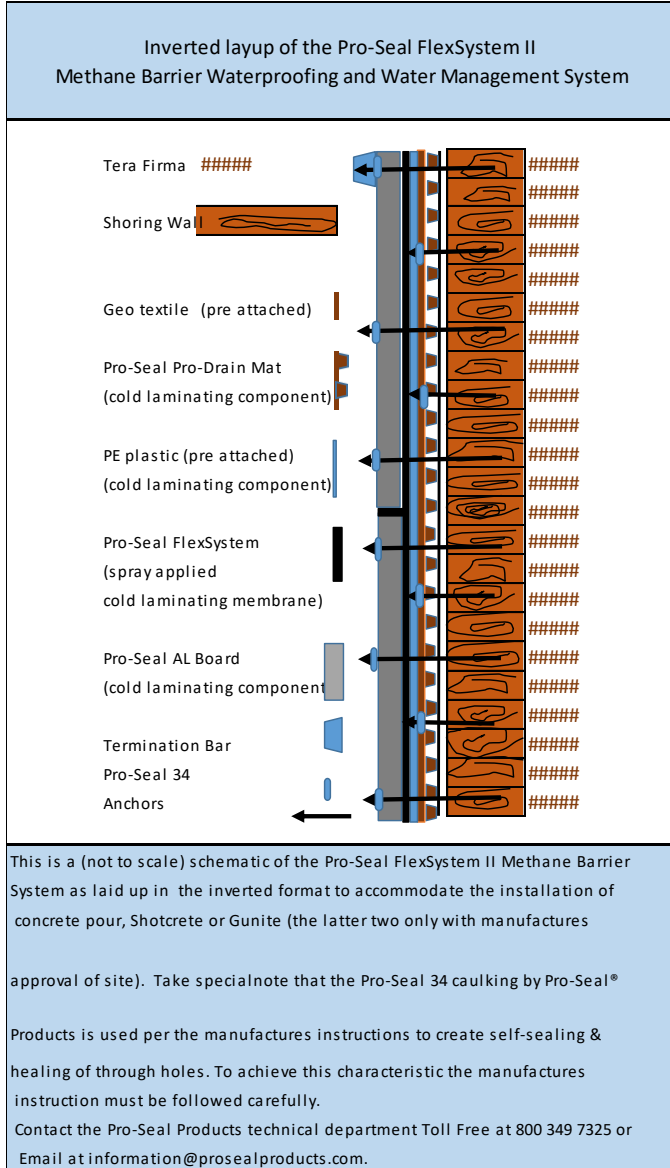
Pro-Seal® FlexSystem II™ (Below Grade water proofing and vapor control System)



City of LA RR# 26015 (CSI # 07130) Below Grade Waterproofing and Water Management

Below is a typical **inverted** cold laminated assembly (layout) of the **Pro-Seal® FlexSystem II Waterproofing, and Water And Vapor Management and System™**.

positioning of a neighboring or abutted structure.



Note: Example only 15 year limited warranty layup inverted application.

The layup (above) is used under special conditions where access space might difficult or impossible to achieve after a concrete pour due to location and/or

The photo above is an example of an inverted installation of the **Pro-Seal® FlexSystem II Waterproofing, and Water and Vapor Management System™** that will have concrete poured or shot to it.

System Component

Pro-Seal Pro-Drain® is a multi-layered geocomposite that combines a high compressive strength core with a geo-textile thermo-fused to the core. This highly durable and porous product is designed to help water and fine soil particles flow through the air-gap to the drainage field.

The **Pro-Seal Pro-Drain®** is an integral part of the **Pro-Seal® Products Pro-Seal® FlexSystem II Waterproofing and Water and Vapor Management™** combined integrated system.

- Available in 6 ft. or 8 ft. widths
- Easy to install
- High flow capacity
- Low labor cost
- Drains maximum gas vapor and water away from structure



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Applications:

- Verticals:
 - Below Grade
- Horizontals:
 - Below Grade
 - Under Floor
 - Between Split Slab

Use anywhere dangerous gas vapors such as Methane and Radon and/or ground water are problematic to your structure

Technical

Information	Value
Material	1 Part Roll
Mix time	N/A
Appearance	Roll
Color	Brown
Packaging:	Widths; 6 ft. roll or 8 ft. roll

Available with or without;

- Geo-textile screen
- PE plastic pre attached sheet

Application Layup Options (verticals)

Pro-Seal Pro-Drain® Inverted Layup

The **Pro-Seal Pro-Drain®** may be applied to and anchored to the vertical shoring wall. When the cold lamination layup of the system is completed, generally as seen in the drawing (above), ahead of the concrete pour the concrete is then poured to the completed **Pro-Seal®** barrier system. All anchor, through holes and overlapping **Pro-Drain®** snap joints and overlapping PE plastic must be sealed with **Pro-Seal 34®** caulking as tested with the system and per the manufactures requirements.

Specifications

(Values of Pro-Drain® when not in system)

Test	Data	Value
Core		
ASTM D 3776	Weight	2.45 oz./ft ²
ASTM D 1621	Compressive strength	11,000 psi 550 kn / m ²
Filter fabric		
ASTM D 4632	Grab tensile	130 lbs.
ASTM D 4632	Elongation	60%
ASTM D 4533	Trapezoidal tear	60 lbs.
ASTM D 4833	Puncture strength	40 lbs.
ASTM D 3786	Mullen burst	140 psi
ASTM D 4751	Apparent operating	70 sleeve size
ASTM D 4491	Flow rate	55 gpm / ft ²
ASTM D 5261	Typical weight	3.9 oz. / yd. sq.
ASTM D 5199	Thickness	18 mils
ASTM D 4355	U.V. resistance	70% @ 500 hrs.
Composite system		
ASTM D 4716	Water flow rate	5.1 gal/min/ft.

Primary Substrate below grade vertical (positive side)

Pro-Seal Pro-Drain® Standard Vertical Layup

The **Pro-Seal Pro-Drain®** may be applied over the lamination as directly applied to the primary substrate as seen in the positive side layup in the guide drawing (below), prior to back fill. All anchor, through holes and overlapping Pro-Drain® snap joints and overlapping PE plastic must be sealed with **Pro-Seal 34®** caulking and per the manufactures requirements.

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The example here (below) depicts a retro-fit

System Component

Pro-Seal FlexSystem II Waterproofing and Water and Vapor Management System™ is a liquid laminate membrane, that is a single component material which forms a semi-ridged, flexible, barrier containment, and management system when laminated with all the components of the **Flex System Waterproofing and Water and Vapor Management System™**. The System properly installed is a flexible, monolithic membrane with vapor barrier, waterproofing and water management properties. This system upon proper installation of all components is a Miso Inorganic Nano Infused Polycarbon/polycarbonate integrated technology.

Applications

Primary Surface:

After concrete or CMU has been pre-treated with **Pro-Seal DP-36®**, the **Pro-Seal® Liquid Cold Laminate™** membrane material may be applied directly to the primary surface. The **Pro-Seal AL Board®** is applied to the wet laminate membrane when a standard application layout of the **Pro-Seal® System** is being performed.

Inverted:

The **Pro-Seal® Liquid Cold Laminate™** material is be applied to the PE sheet, on the back of the **Pro-Seal Pro-Drain®**, when an inverted layout of the **Pro-Seal® System** is being performed.

- May be used in vertical or horizontal applications
- Multiple coats may be applied with no peeling
- Tough, durable and flexible
- Environmentally friendly

Applications: Concrete, Plywood, Metal Brick, Asbestos, CMU Block, other Masonry and more.

Apply with: Brush, Squeegee, Roller or Sprayer

Application Instructions: For specific application instructions, guide sketches and/or guide specifications, contact us at 800.349.7325 or techncial@prosealproducts.com

Caution: Store pails or drums of material out of heat and sunlight. Applied material may be exposed to sunlight at 70°F / 21°C for not to exceed 120 days.

Technical (Liquid Laminate when not a system component)

Information	Value
Material	1 part
Mix time	None
Appearance	Liquid
V.O.C. content	20 grams/liter
Flash point	150°F
Service temperature	>-70°F to 175°F
Cure time recoat	6-12 hours
Cure time complete	96 hours
Stain resistance	Very good
Weight	9.2 lbs./ gallon
Shelf life	6 months when stored properly
Spread rate	30 mils @50 ft ² / gal
Packaging:	5 or 55 gallons

Chemical Resistance

ASTM D 2299 (in laminated system contact surface to contaminants)	
Cured material	Rating
Alkalize spillage/splash	Very Good
Methane, Radon (in FS II System only)	Excellent
Solvents spillage/splash (In FS II System only)	Excellent
Salt fumes (in FS II System only)	Very good
Salt spillage/splash 72 hours clean up	Excellent
Water spillage/splash	Excellent
Water constant immersion 48 hours max	Excellent



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Specifications (Liquid Laminate when not in system)

ASTM/Test	Data	Value
D 154	Resistance to decay	No surface defects
D 412-98	Elongation	700% ± 10
D 412-98	Recovery	98% ± 2 4 groups tested
D 412-98	Tensile strength	436 psi (3.0 n/mm ²)
D 751-00	Hydrostatic pressure resistance	94 psi (3.38 n/mm ²)
D 903-98	Adhesion to concrete	19 psi (3.38 kg/cm) No peel/film break
D 2240-97	Shore hardness	35 ± 5 A
D 2369-98	Solids content	86% ± 2 weight 80% ± 2 volume
E 96-00 Procedure B	Water vapor trans. (in System)	< .00 perms
Brookfield viscometer	Viscosity	250 cps ± 50

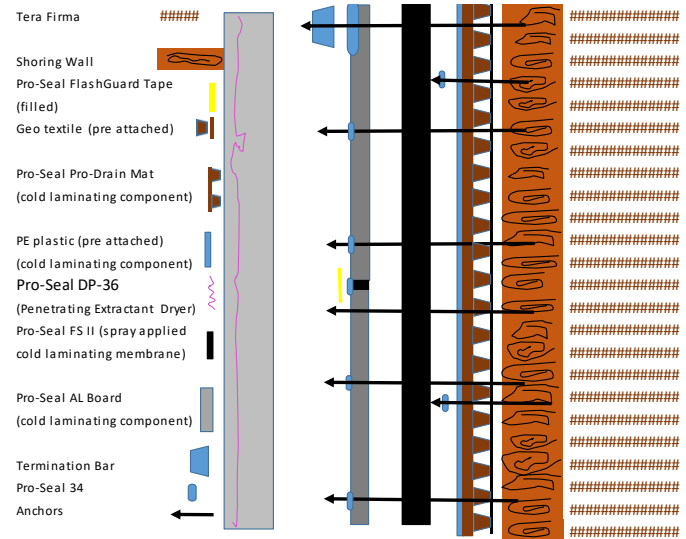
* Data based on laboratory-tested materials.

Limited Warranty Program

Warranties are only offer when **Pro-Seal® FlexSystem II Waterproofing and Water and Vapor Management System™** is installed by a factory authorized applicator in good standing with the manufacturer Pro-Seal Products®. The length of warranty is based on individual projects, system design layup, and installation conditions at site. Warranties are fee based and are available 13-, 15-, 20-, 25- and 35-year periods depending on project and site qualifications. The product may be installed by non-authorized applicators where no warranty shall be offered or enforce.

All repairs of warranted projects must be completed by **Pro-Seal® Authorized Applicators**.

Pro-Seal® FlexSystem II Waterproofing and Water and Vapor Management System™ Inverted Layup Application Step by Step.



Step 1	Step 2	Step 3 cont'd	Step 4 cont'd	Step 5 cont'd
Hang Pro-Seal Pro-Drain, from the top down, to the shoring wall. Anchor with mechanical fastener applied through Pro-Seal 34 caulking to assure self sealing. Seal over lapping snap joints with Pro-Seal 34. Seal overlapping PE sheet with Pro-Seal 34. Mechanically Anchor as required, running anchors through Pro-Seal 34 to assure self sealing anchors.	Spray apply Pro-Seal Liquid laminating membrane Pro-Seal FSII to the (after overlaps sealed) Pre-attached PE sheet.	Press Pro-Seal AL Board into the wet membrane and mechanically attach. Run anchors through Pro-Seal 34 caulk to create a self sealing anchor.	Join with Pro-Seal 34 and Pro-Seal FlashGuard Tape. Fill tape with Pro-Seal AquaFlex. Attach top of assembly with termination bar running anchors through Pro-Seal 34 caulking to assure they are self sealing.	shotcrete or gunite may be pumped to pre-applied inverted system. Contact the manufacturer if you are considering one of the above two special methods.
				dryng agent to the concrete substrate once forms are pilled. Note: This guide is general ans always look to the plans ans specifications for sitespecific design and applkation layup. contact Pro-Seal Tech. Dept. for more information.
			Pour Concrete to forms, under special conditions	Spray apply Pro-Seal DP-36 deep penetrating fluid

Contractor Training and Authorization

To become an authorized applicator of Pro-Seal® Products Systems and materials attend Pro-Seal University™. Learn about and many unique Nano tech materials that may be applied in adverse environments and save time and labor. For more information contact Pro-Seal® Products Technical Department.

Pro-Seal Technical Support: Contact our technical department at 800.349.7325, technical@prosealproducts.com or information@prosealproducts.com or visit our website www.prosealproducts.com for additional information

Distributor and Dealer enquires are welcome. We manufacture over 250 unique products and systems for the Industrial, Marine. Commercial Construction, Military, Utility, Municipal, DOT, Petroleum, Chemical and other markets.



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Disclaimer's and Cautions: Drawings, Design and Guide Instructions

Drawings:

The drawings contained herein these pages are (not to scale). The drawings are not precision nor are they to be construed as actual as applied drawings. These drawings are likenesses meant to convey the concept, idea and methods of potential use and application of the Pro-Seal® FlexSystem II Methane Barrier System™.

Design:

Actual design layup and applied methodology if the installation of the system will be done by the specifying party with the review of the manufacturer's technical department and final manufacturer's approval of final design when a warranty is required.

Instructions:

The guide instructions contained herein are not project or site specific. Said information is strictly a guide to convey design concept, layup concept and use concept.

Cautions:

Keep out of reach of children. May cause skin or eye irritation. This product may be harmful if swallowed. Do not induce vomiting. Use in well ventilated areas. Contact a physician immediately and always seek a physician's advice regarding first aid. Use only in commercial or industrial applications. Use only on intended surfaces. Contact manufacturer for specific application uses. See material safety data sheet for additional cautions

Limited Warranty:

We warrant our product to be free of defects in material and workmanship; and to be in accordance with our company quality control standards. All data, statements, and recommendations made herein are based upon information we believe to be reliable, but are made without any representation, guarantee, or warranty of accuracy. Our products are sold on the condition that the user himself will evaluate them, as well as our recommendations, to determine their suitability for the user's own purpose before adoption.

Also, statements regarding the use of our products or processes are not to be construed as recommendations for their use in violation of any patent rights or in violation of any applicable laws or regulations. Liability under any condition shall be limited to replacement of material only. No statement claim verbal, written, paper medium, electronic medium or any other known or unknown medium made by independent representation, dealers, distributors or any third parties whatsoever that are not in written form, nor authored and/or distributed by from the

manufacturer, shall not be the responsibility nor liability of the manufacturer.

Communication With Pro-Seal® Products Is Easy !

- **We love our clients !**
- **We love customer service !**

Sales and Marketing:
Ph.: 800 349 7325

Email: information@prosealproducts.com

Place Orders Electronically:
accounting@prosealproducts.com

Limited availability of product line; Amazon.Com
amazon.com : Pro-Seal 34®
amazon.com : Pro-Seal ExtremeDry™

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