

KINGFIELD CONSTRUCTION PRODUCTS



ECOTAK™

Green, High Performance, Self-Adhesive Waterproofing Membrane

Preformed EVA Membrane with Bio-Based Adhesive

Below-Grade, Plaza, & Green Roof Applications
20% Recycled Content - Cold, Heat, & UV Resistant

Description

Ecotak is a 60 mil pliable preformed Ethyl Vinyl Acetate (EVA) film with bio-based adhesive backing that exhibits exceptional adhesive properties. Ecotak's non-bitumen based adhesive is derived from environmentally friendly canola oil. This bio-based adhesive adheres the Ecotak membrane to various substrates better than bitumen-based adhesives. The pliable EVA film offers superior puncture resistance and tensile strength while also providing excellent chemical resistance.

Ecotak utilizes a proprietary surface sealer, Primetak-T1, that binds surface dust on the substrate and provide a high tack finish to enhance Ecotak's adhesion for application to concrete substrates. Primetak-T1 surface sealer meets current SCAQMD regulations for VOC content.

Advantages

Features

Exceptional Adhesion

Bio-Based Adhesive

Applies to Green Concrete

*Superior Physical Durability,
Flexibility, and Strength*

**Superior Chemical Resistance
& Impervious to Hydrocarbons**

Simple and Easy Application

Benefits

Bio-based adhesive adheres to substrates more tenaciously than typical bitumen-based adhesives ensuring superior waterproofing performance.

Naturally derived from canola oil, Ecotak's bio-based adhesive is free of bitumen based compounds.

Eliminate the 28 day delay and apply the Ecotak system as soon as the concrete substrate is structurally sound.

EVA film is a highly durable polymer that offers excellent protection required for a high performance waterproofing membrane while maintaining flexible workability for ease of application.

Resistant to most soil contaminates, methane, and radon gases. Ecotak retains its physical properties in the harshest environments ensuring long term effectiveness.

Application is fast and easy with Ecotak's self-adhered, self-seaming system.

Applications

Ecotak is a versatile waterproofing membrane suitable for application to concrete, masonry, and wood surfaces. Resilient and flexible, Ecotak can bridge cracks in concrete and respond to movement of the structure without losing waterproofing ability. Ecotak's durable EVA film can withstand shock and impact to help mitigate potential damage to the membrane either during or after application. Typical applications include below grade foundation walls, split slab construction, and tunnel work. Ecotak can be applied in both vertical and horizontal applications.

Surface Preparation

Surfaces should be structurally sound and free of voids, spalled areas, loose aggregate, and sharp protrusions. Remove contaminants such as grease, oil, and wax from exposed surfaces. Remove dust, dirt, loose stone, and debris. Concrete must be properly dried (minimum 7 days for normal structural concrete and 14 days for lightweight structural concrete).

Surface Conditioning

Primetak-T1 may be applied with roller or brush. A roller with a heavy nap should be used, such to carry sufficient material to the area being coated. The application of liquid sealant should be limited to what can be covered with Ecotak waterproofing system in one working day. Any areas not covered with membrane during the day must be recoated, and be sure to cover all open containers when not applying liquid sealant. If sealant dries and is no longer tacky, reapply sealant.

Surface Conditioning

Primetak-T1 may be applied with roller or brush. A roller with a heavy nap should be used, such to carry sufficient material to the area being coated. The application of liquid sealant should be limited to what can be covered with Ecotak waterproofing system in one working day. Any areas not covered with membrane during the day must be recoated, and be sure to cover all open containers when not applying liquid sealant. If sealant dries and is no longer tacky, reapply sealant.

Apply Primetak-T1 sealant to a clean, dry, dust-free, and frost-free surface at a coverage rate of approximately (6-8 m² / L) 250-350 square feet per gallon. The liquid sealant should be spread sufficiently to avoid areas of access material. Areas of excess material will lengthen the curing time on the application of the Primetak-T1.

Primetak-T1 should become tacky to touch, timing may vary due to atmospheric conditions.

Ecotak membrane should now be applied to the primed surface.

Horizontal Application

Apply membrane from the low point to the high point so that laps shed water. Overlap all seams at least 3 inches. Stagger all end laps. Roll the entire membrane firmly and completely as soon as possible. Seal all T-joints and membrane terminations with Ecotak Liquid Membrane.

Vertical Application

Apply membrane in lengths up to 8 ft (2.5 m). Overlap all seams at least 3 inches. On higher walls apply membrane in two or more sections with the upper overlapping the lower by at least 3 inches. Roll all membrane with a hand roller. Terminate the membrane at grade level. A termination bar should be used to ensure a tight seal.

Membrane Repairs

Patch tears and inadequately lapped seams with membrane. Clean membrane with a damp cloth and dry. Slit fishmouths and repair with a patch extending 6 inches in all directions from the slit and seal edges of the patch with Ecotak Liquid Membrane. Inspect the membrane thoroughly before covering and make any repairs.

Membrane Protection

Avoid damage from follow on trades and backfill through proper protection of the installed Ecotak membrane. Install suitable protection as soon as practical to avoid waterproofing membrane damage.

Backfill & Compaction

Backfill as soon as possible. Use care during backfill operation to avoid any damage to the Ecotak. Follow generally accepted practices for backfilling and compaction.

Product Data	Ecotak
Description	Self-Adhesive EVA Membrane Bio-Based Adhesive
Thickness	0.060 in. (1.5 mm)
Dimensions	3.28 ft. x 32.8 ft. (1 m x 10 m)
Coverage Area	107 sq. ft. (10 sq. m.)
Weight	40 lb.
Packaging	Bag
Units/bag	1 unit/bag
Units/Pallet	30 units/pallet
Shelf Life	Indefinite
Health & Safety	Consult MSDS

Physical Performance Data	RESULTS	TEST METHOD
Thickness	60 mil nominal	ASTM D3767 – method A
Elongation – Ultimate failure of adhesive – Die C	615.3%	ASTM D412 ¹
Tensile Strength – Film	1686.5 psi	ASTM D882 ¹
Tensile Strength – Adhesive	1524.8 psi	ASTM D412 ¹
Flexibility – 180 bend over 1 inch mandrel @ -25F	No Cracking	ASTM D1970
Lap Adhesion – Minimum Recommended Application Temperature – 40F	9.1 lbf/in.	ASTM D1876 ²
Peel Strength Over Poured Concrete	38.3 lbf/in.	ASTM D903 ³
Puncture Resistance – Membrane	154.3 lbf, 1.9" deflection	ASTM E154
Resistance to Hydrostatic Head – 3 inch lap	3 pass at 100 psi (231 ft. of water)	ASTM D5385
Resistance to Lateral Water Migration	3 pass at 100 psi (231 ft. of water)	ASTM D5385 ⁴
Moisture Absorption – 24 hour immersion at 73F	0.05%	ASTM D570
Water Vapor Transmission	0.027 perms	ASTM E96 – water method

- Footnotes:**
1. Elongation and tensile testing is run at a rate of 2 inches per minute.
 2. Lap adhesion testing is conducted 15 minutes after the lap is formed and run at a rate of 2 inches per minute at 40F.
 3. Peel strength over poured concrete testing conducted at 180 run at a rate of 12 inches per minute.
 4. Lateral water migration resistance is tested by casting concrete against membrane with a hole and subjecting the membrane to hydrostatic head pressure with water. The test measures the resistance of lateral water migration between the concrete and the membrane.

KINGFIELD CONSTRUCTION PRODUCTS

Minneapolis, Minnesota
www.kingfieldcp.com

TECHNICAL SUPPORT

Phone: +1 (612) 225-5167
Email: info@kingfieldcp.com
©2015 Kingfield
Printed in U.S.A.

LIMITED WARRANTY NOTICE Every reasonable effort is made to apply KINGFIELD CONSTRUCTION PRODUCTS (KCP) exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, KCP MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and KCP shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the KCP Technical Manager.

This information and all further technical advice are based on KCP's present knowledge and experience. However, KCP assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights. In particular, KCP disclaims all CONDITIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. KCP SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. KCP reserves the right to make any changes according to technological progress or further developments. It is the customer's responsibility and obligation to carefully inspect and test any incoming goods. Performance of the product(s) described herein should be verified by testing and carried out only by qualified experts. It is the sole responsibility of the customer to carry out and arrange for any such testing. Reference to trade names used by other companies is neither a recommendation, nor an endorsement of any product and does not imply that similar products could not be used.