



PRODUCTS

Division of Sierra Corporation
ISO 9001:2008 Certified



TK-AIRMAX® 2104 VAPOR PERMEABLE

Waterborne Liquid Air Barrier

Division 7 - 072726

Meets Federal EPA's VOC Requirements

Complies with California Air Resource Board (CARB), South Coast Air Quality Management District (SCAQMD) and OTC/LADCO

TK-AIRMAX® 2104
Vapor Permeable Waterborne Liquid Air Barrier

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TK-AIRMAX® 2104
Vapor Permeable Waterborne Liquid Air Barrier

1. PRODUCT NAME:

TK-AIRMAX® 2104 VAPOR PERMEABLE
WATERBORNE LIQUID AIR BARRIER

2. MANUFACTURER

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3. PRODUCT DESCRIPTION:

TK-AIRMAX® 2104 VAPOR PERMEABLE is a water-borne, elastomeric, liquid membrane, vapor permeable air barrier used to restrict air movement and protect concrete, masonry, exterior gypsum and OSB board. TK-AIRMAX® 2104 VAPOR PERMEABLE forms a solid barrier against air leakage (infiltration/exfiltration) and saves energy by prohibiting movement of air through the building envelope, while also restricting moisture condensation which could lead to structural damage, mold and mildew. It forms a film which is repellent to wind driven rain, but is permeable to water vapor allowing unwanted moisture to escape the occupied area and substrate.

TK-AIRMAX® 2104 VAPOR PERMEABLE offers superior flexibility, elongation and recovery properties which allow it to bridge cracks and move with the substrate throughout a wide range of temperatures. It contains no plasticizers and will not become hard or brittle through many years of exposure.

TK-AIRMAX® 2104 VAPOR PERMEABLE provides excellent resistance to dirt, acid, alkali, airborne pollutants, mildew, and degradation from freeze/thaw or ultraviolet rays.

TK-AIRMAX® 2104 VAPOR PERMEABLE has a U.V. resistance of 12 months.

Advantages:

- Reduces air flow through exterior walls resulting in energy savings.
- Tough, seamless, elastomeric film.
- Superior water repellency.
- Maintains flexibility through multiple weathering cycles.
- Contains no external plasticizers.
- Excellent low temperature flexibility.
- Ideal coating for sealing and waterproofing hairline cracks.
- Permeable to water vapor.

AIRMAX® SYSTEM

DETAIL ACCESSORY PRODUCTS

The following tapes and caulks have been developed as complimentary accessory products to the AIRMAX® SYSTEM:

- Climate Flash™ - Flashing Tape
- Super Seal PE™ - Polyether Joint Sealant
- Butyl Bond™ - Poly Butyl Tape
- SS Flashing™ - Stainless Steel Flashing
- TWF-18™ - Stainless Steel Thru Wall Flashing

Please visit the TK Products website for more information or to access technical data sheets for these products.

Basic Uses:

For any properly prepared interior or exterior concrete, block, densglass, plywood, OSB board, and exterior grade gypsum sheeting.

4. TECHNICAL DATA:

Composition and Materials:

An elastomeric, water-borne, acrylic coating with high quality 100% acrylic virgin resins.

Weight/Gal:	11.7 lbs.
VOC Content:	< 100 g/l
% Solids by Weight:	54 +/- 2%
Flash Point:	None
Drying Time:	
Tack Free:	2-4 hours
Full Cure:	72 hours (dependent on ambient temperatures & humidity)

Applicable Standards

See the chart on the opposite page for a listing of TK-AIRMAX® 2104 VAPOR PERMEABLE's ASTM/ABAA meeting standards.

- A.I.M. Category: Waterproofing Sealer and Treatment - maximum VOC 600 g/l.
- A.I.M. Definition: A coating formulated and recommended for application to a porous substrate for the primary purpose of preventing the penetration of water and air.

5. APPLICATION PROCEDURES AND INSTRUCTIONS

Before buying and using this product, read completely this product's label, technical data sheet and Material Safety Data Sheet (MSDS), available where product is purchased.

Preparation:

A clean, dry, surface is required when applying TK-AIRMAX® 2104 VAPOR PERMEABLE. No free water should be present on substrate surface. Surface should be free from frost, dirt, grease, oil, or other containments. The substrate should be free of screws, sharp protrusions, or other matter that will prevent adhesion.

Material is ready for use and requires no mixing unless signs of separation are observed. It is unlawful to further reduce with non-exempt solvents.

Masonry:

CMU mortar must be tooled at a minimum. Any voids, form tie holes and honey combed areas should be filled and repaired. Use a brush to remove loose mortar, smears and dirt that will affect adhesion. Remove mortar droppings from form ties and anchors. TK-AIRMAX® 2104 VAPOR PERMEABLE should be applied by spray, brush or roller directly to the clean surface.

Exterior Gypsum Sheeting:

TK-AIRMAX® 2104 VAPOR PERMEABLE may be applied by spray, brush or roller directly to exterior sheathing panels, i.e. exterior drywall, orientated strand board (OSB), plywood, and glass faced board. Fasten corners and edges with appropriate screws. Fasteners should be driven flush with the panel surface (not countersunk). It is recommended that all joints and seams be pre or post caulked with TK SUPER SEAL PE™ or taped with TK CLIMATE FLASH™ or TK BUTYL BOND™. All gypsum corners need to be taped with TK CLIMATE FLASH™ or TK BUTYL BOND™.

Penetrations:

Transition and Control Joints: Joints between 1/32" - 3/8" should be pre or post filled with TK SUPER SEAL PE™. Allow caulking membrane to cure before applying TK-AIRMAX® 2104 VAPOR PERMEABLE by spray, brush or roller.

Larger Joints: Joints larger than 3/8" should be detailed with TK CLIMATE FLASH™ or TK BUTYL BOND™.

Flanges for Window or Doors:

Flanges may be connected using one or a combination of the following products: SUPER SEAL PE™, CLIMATE FLASH™, BUTYL BOND™ or SS FLASHING™. *Details for proper application are available from the TK Products website.*

Large Openings:

Openings greater than 3/8" should be detailed to cover the opening with TK CLIMATE FLASH™ or TK BUTYL BOND™ after coating the substrate with TK-AIRMAX® 2104 VAPOR PERMEABLE and allowing the membrane to dry. For expansion joints, apply TK-AIRMAX® 2104 VAPOR PERMEABLE to the substrate, allow to cure, then apply TK CLIMATE FLASH™ or TK BUTYL BOND™ over the cured membrane.

Equipment:

A typical sprayer is a Graco 7900 with a working pressure of 3300 psi that delivers 2.1 gallons/minute with a tip size 0.027 to 0.033. Use a 3/8" pressure rated hose. Brush and/or roller will also work for small applications or touch up.

Coverage:

The coverage rate of TK-AIRMAX® 2104 VAPOR PERMEABLE is inversely affected by the texture and porosity of the substrate. One coat is sufficient when applied at 37-40 ft²/gallon, or 40-45 wet mil film. While TK-AIRMAX® 2104 VAPOR PERMEABLE may be applied in one coat, any areas that are thin may be recoated at any time. Total dry mil cured coating will be 25-28.

Limitations:

Do not apply if ambient or substrate temperature is below 40° F or is expected to fall below 40°F within 24 hours of application. Do not apply to wet or damp substrates, over

frost, or if rain is expected within 24 hours of application. Maximum allowable moisture content in the substrate is 17%. Do not apply during high humidity conditions. This product should not be applied over silicone rubber sealants or caulks. TK-AIRMAX® 2104 VAPOR PERMEABLE should be fully cured before rigid insulation is installed over the membrane. TK-2104 is not resistant to aromatics, ketones or esters type solvents.

Precautions:

DO NOT LET FREEZE. Keep containers tightly sealed.

Clean Up:

All equipment may be cleaned with a mild detergent and water solution.

Safety Precautions:

May cause skin and eye irritation. If contact occurs flush affected area with plenty of water. Call a doctor. Do not take internally. If ingested, give water or milk and induce vomiting if victim is conscious and not drowsy. Consult a doctor. Use only with adequate ventilation.

6. AVAILABILITY:

TK-AIRMAX® 2104 VAPOR PERMEABLE is available through TK distributors. Contact TK Products for your authorized distributor.

Packaged in 55-gallon drum and 5-gallon pails.

7. CONDITIONS OF SALE/ LIMITED WARRANTY

TK Products, division of the Sierra Corporation, warrants that its products conform to the label descriptions, are free from manufacturing defects, and are fit for the ordinary purposes for which such goods are used. Inasmuch as the use of TK Products' product by others and other factors affecting product performance are beyond TK Products' control, TK Products does not guarantee the results to be obtained. There are no warranties except as stated herein, either express or implied, including

implied warranties of merchantability or fitness for a particular purpose. SHOULD ANY TK PRODUCTS' PRODUCT FAIL TO GIVE SATISFACTORY RESULTS, TK PRODUCTS WILL REPLACE THE PRODUCT, OR AT ITS OPTION, REFUND THE PURCHASE PRICE. THIS IS THE SOLE AND EXCLUSIVE REMEDY FOR ANY FAILURE OF TK PRODUCTS' PRODUCTS TO PERFORM AS WARRANTED AND SHALL ALSO CONSTITUTE LIQUIDATED DAMAGES IN CASE OF LOSS. UNDER NO CIRCUMSTANCES SHALL THE BUYER BE ENTITLED TO ANY OTHER REMEDY OR DAMAGES. REMEDIES FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE SPECIFICALLY EXCLUDED. TK Products does not authorize any person to assume for it any other liability in connection with the sale or use of its products unless specifically authorized by TK Products in writing.

8. TECHNICAL SERVICES

The TK office offers assistance with specifications, performance test data and field services.

9. FILING SYSTEMS

Information Handling Services

PO Box 1213

Englewood, CO 80150

Information Marketing Services

13271 Northend

Oak Park, MI 48223

TK DISCLAIMER:

Every effort has been made to ensure the accuracy of the above information and to avoid infringement of any patent or copyright. The information is based on field tests by government and private agencies, as well as lab tests, and on technical data from raw material manufacturers. The person(s) specifying or requesting the use of these products is responsible for assuring their suitability for a specific use, as well as the proper application of the products. Where there is any question as to the suitability of a particular product, a small test patch is recommended. See also CONDITIONS OF SALE/ LIMITED WARRANTY (Section 7) above.

FOR INDUSTRIAL USE ONLY

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Applicable Standards	ASTM and/or ABAA Requirements	TK-2104 AIRMAX® VP Performance
ASTM E-2178 - Standard Test Method for Air Performance of Building Materials	< 0.02 L/(s·m ²) = 0.004 CFM/ft ²	0.0034 L/(s·m ²) = 0.0008 CFM/ft ²
ASTM E-2357 - Standard Test Method for Determining Air Leakage of Air Assemblies	< 0.20 L/(s·m ²) = 0.04 CFM/ft ²	0.006 L/(s·m ²) = 0.0012 CFM/ft ²
ASTM E 96-00 - Water Vapor Transmission and Vapor Permeability Test, Procedure B	Declared Value	17.619 Perms
ASTM C 1305 - Crack Bridging	Pass	Pass
ASTM D1970 - Seal Sealability	Pass	Pass
AATCC Test Method 127 - Water Resistance	> 55 cm	55 cm
ASTM D4541 - Adhesion Strength	> 110 kPa	970 kPa 140.7 psi
ASTM D412 - Elongation and Tensile Strength Test	N/A	1118%
ASTM D-3274/D-3273 - Fungus and Mildew Resistance Test	N/A	Pass
ASTM E-882 - Accelerated Weathering Test	N/A	Pass
ASTM C-666 - Freeze/Thaw Resistance Test	N/A	Pass
Federal Specification TT-C-555 B - Wind Driven Rain Test	N/A	Pass