



Division of Sierra Corporation
ISO 9001:2008 Certified

TK-AirMax 2104 VP

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 VP
Vapor Permeable Waterborne Liquid Air Barrier

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1. PRODUCT NAME:

TK-AirMax 2104 Vapor Permeable (VP) Water Base

2. MANUFACTURER

TK PRODUCTS
DIVISION OF SIERRA CORPORATION
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Website: <http://www.tkproducts.com>

3. PRODUCT DESCRIPTION:

TK-AirMax 2104 VP is a waterborne liquid membrane vapor permeable air barrier. It is a protective, elastomeric acrylic coating with high quality 100% acrylic virgin resins for concrete, masonry, exterior gypsum, and OSB board. TK-AirMax 2104 VP exhibits excellent resistance to air leakage. It has excellent elongation and recovery properties. TK-AirMax 2104 VP creates a solid barrier against air infiltration and exfiltration, which minimizes energy loss and condensation issues. TK-AirMax 2104 VP has excellent resistance to dirt, acid, alkali, airborne pollutants, mildew, and degradation from freeze/thaw or ultraviolet rays. TK-AirMax 2104 VP has a U.V. resistance of 12 months. TK-AirMax 2104 VP will bridge cracks and move with the substrate throughout a wide range of temperatures. 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 VP contains no plasticizers and will not become hard or brittle through many years of exposure.

Basic Uses:

TK-AirMax 2104 VP is a waterborne elastomeric air barrier designed to minimize air movement through exterior walls resulting in energy saving. It provides an elastomeric, long-lasting water repellent coating for exterior or interior properly prepared concrete, block, densglass, plywood, OSB board, and exterior grade gypsum sheathing.

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.

4. TECHNICAL DATA:

Weight/Gal:	11.7 lbs.
% Solids by Weight:	54 +/- 2%
Drying Time:	
Tack Free:	24 hours
Full Cure:	72 hours
Flash Point:	none

Applicable Standards

TK-AirMax 2104 VP has been formulated to meet or exceed the following specifications (see back page for a chart detailing these standards).

- VOC Content: Less than 100 grams per liter.
- 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. Material is ready for use, requires no mixing unless signs of separation are observed. It is unlawful to further reduce with non-exempt solvents.

A clean, dry, surface is required when applying TK-AirMax 2104 VP. 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.

Masonry:

CMU mortar must be tooled at a minimum. All masonry block and poured concrete voids: form tie holes, honeycombed areas should be filled and repaired. Remove loose mortar, smears and dirt that will affect adhesion with a wire brush. TK-AIRMAX 2104 VP should be applied directly to the clean substrate surface.

Exterior Gypsum Sheeting:

TK-AIRMAX 2104 VP can be applied 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). Any joints larger than 1/4" wide, it is recommended but not required to cover all screw heads and joints with TK-AirMax 2203 Caulk, TK-AirMax 2200 All Weather Flashing Tape, TK-AirMax 2201 Sheathing Tape or equivalent sheathing tape or caulk. Surface should be clean, free of frost, or excess moisture.

Penetrations:

Transition and Control Joints: joints of 1/32 - 3/8" should be detailed with TK-AirMax 2203 Caulk, TK-AirMax 2200 All Weather Flashing Tape, TK-AirMax 2201 Sheathing Tape or equivalent sheathing tape or caulk. Allow caulking membrane to cure before applying AirMax 2104. Joints greater than 3/8" should be covered with TK-AirMax 2200 All Weather Flashing Tape or TK-AirMax 2201 Sheathing Tape after coating the substrate with TK-AIRMAX 2104 VP and allowing to dry.

Flanges for Window or Doors:

Connect TK-AIRMAX 2104 VP to flanges with a vapor impermeable caulk or using TK-AirMax 2200 All Weather Flashing Tape. Details for proper application are on the TK Products website.

Large Openings:

Openings greater than .350 - 1.0" should be detailed to cover the opening with TK-AirMax 2200 All Weather Flashing Tape after coating the substrate with TK-AIRMAX 2104 VP and allowing to dry.

Mixing:

The material is ready to use. The contents should be stirred to eliminate any settling which may occur upon storage or shipping.

Application:

A total of 40-45 wet mills are required. After the final coat has dried inspect for pinholes protruding through to the substrate. Any such pinholes should be touched-up by dabbing material onto the area with a paint brush.

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.

Dry Time:

Drying time is typically 24 hours at 74°F and 50% relative humidity. Lower temperature and high relative humidity can extend this time.

Coverage:

The coverage rate of TK-AirMax 2104 VP 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. Typical substrate applications are: concrete, block, DensGlass, plywood, OSB board, and exterior grade gypsum sheeting. While

TK-AirMax 2104 VP 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. Do not apply TK-AirMax 2104 VP over frost or water. Do not apply if the temperature is expected to fall below 40°F within 24 hours after application. Do not apply if rain is expected within 24 hours of application, or during high humidity conditions. Do not apply to wet or damp substrates. Maximum allowable moisture content in the substrate is 17%. This product should not be applied over silicone rubber sealants or caulks. TK-AirMax 2104 VP 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 VP 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 4823

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	<0.004 CFM/ft ²	0.0004 CFM/ft ²
ASTM E-2357 - Standard Test Method for Determining Air Leakage of Air Assemblies	<0.02 L/(s m ²) @ 75 Pa	0.006 L/(s m ²) @ 75 Pa 0.0012 CFM/ft ²
ASTM E 96-00 - Water Vapor Transmission and Vapor Permeability Test, Procedure B	Declared Value	Permeance 17.26 Perms
ASTM C 1305 - Crack Bridging	Pass	Pass
ASTM D1970 - Seal Sealability	Pass	Pass
AATCC Test Method 127 - Water Resistance	Pass	Pass
ASTM D4541 - Adhesion Strength	Declared Value	140.7 psi
ASTM D412 - Elongation and Tensile Strength Test	N/A	1009% at 73°F 1118% at 34°F
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