TK-AirMax 2104 VP

Vapor Permeable Waterborne Liquid Air Barrier

Division 7 Section: 072726

Meets Federal EPA's VOC Requirements

TK PRODUCTS
Division of Sierra Corporation
ISO 9001:2008 Certified

1. PRODUCT NAME:
TK-AirMax 2104 Vapor Permeable (VP)

2. MANUFACTURER
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3. PRODUCT DESCRIPTION:
TK-AirMax 2104 VP is a waterborne liquid membrane water vapor permeable air barrier. It is a protective, elastomeric acrylic coating with high quality 100% acrylic 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 18 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 water 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 sheeting.

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 +/- 1%
Viscosity (KU):	108 - 112
Drying Time: Tack Free: Full Cure:	 24 hours 72 hours
pH:	9.5
Flash Point:	none
Film Thickness @ 40-70ft²/gal:	23-40 wet mil 18-11 dry mil

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 50 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 struck flush and brushed or tooled.
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. Concrete block laid and walls poured late in the year should be allowed to gain sufficient strength for good adhesion.

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 then ¼" should be taped with a 2" wide sheathing tape or approved caulk. Surface should be clean, free of frost, or excess moisture.

Penetrations:
Transition and Control Joints: joints of 1/32 - 3/8" should be filled with a vapor impermeable approved caulk. Joints greater than 3/8" should be covered with a TK approved non-shrink butyl tape or a self-adhering membrane 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 a TK approved self adhered membrane. Details for proper application are on the TK Products website. Fasten a TK approved non-shrink butyl tape or self adhering flashing to the openings.

PRODUCTS
TK-AirMax 2104 VP | Vapor Permeable Waterborne Liquid Air Barrier

Large Openings:

Openings greater than .350 - 1.0" should be first filled with compatible backing material made level with the substrate. Top coat with 32 - 40 wet mils of TK-AirMax 2104 VP. An alternative is to cover the opening with a TK approved non-shrink butyl tape or self adhered membrane 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 23-40 wet mils 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. *Spray Application:* Apply by a Graco 7900 airless sprayer with a 0.021 to 0.027 mastic tip, or equivalent. For any small applications or touch-ups, a brush or roller may be used.

Dry Time:

Drying time is typically 24 hours at 74°F and 50% relative humidity. Lower temperaturea 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. 40-70 ft^2/gal on concrete, block, DensGlass, plywood, OSB board, and exterior grade gypsum sheeting is a typical covereage rate. While TK-AirMax 2104 VP may be applied in one coat, two lighter coats may be needed to provide proper coverage.

Limitations:

Do not apply if ambient or substrate temperature is below 45° F. Do not apply TK-AirMax 2104 VP over frost. Do not apply if the temperature is expected to fall below 45°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%.

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

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		Permeance 12.8 Perms
ASTM D412 - Elongation and Tensile Strength Test		1009% at 73°F 1118% at 34°F
ASTM D-3274/D-3273 - Fungus and Mildew Resistance Test		Passed
ASTM E-882 - Accelerated Weathering Test		Passed
ASTM C-666 - Freeze/Thew Resistance Test		Passed
Federal Specification TT-C-555 B - Wind Driven Rain Test		Passed

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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 48237

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