

TK-AIRMAX® 2104

Vapor Permeable Water Borne Air Barrier

Fluid Applied Air Barrier | Division 7: Section 072726

Item No. TK-2104

PRODUCT DESCRIPTION

TK-AIRMAX® 2104 VAPOR PERMEABLE is a high performance, water borne liquid applied air barrier for use on both residential and commercial cavity walls. TK-AIRMAX® 2104 VAPOR PERMEABLE creates a seamless, tough film to act as a solid barrier against air leakage (infiltration/exfiltration), resulting in energy savings while also restricting moisture condensation which could lead to structural damage, mold or mildew.

Features:

- Reduces air flow through exterior walls, resulting in energy savings.
- Creates a tough, seamless, elastomeric film with superior water repellency.
- Bridges cracks and moves with the substrate throughout a wide range of temperatures.
- Maintains flexibility throughout multiple weathering cycles - contains no plasticizers and will not become hard or brittle through many years of exposure.
- Forms a film which is repellent to wind driven rain, yet is permeable to water vapor to allow unwanted moisture to escape the occupied area and substrate.
- Excellent resistance to dirt, acid, alkali, airborne pollutants, mildew and degradation from freeze/thaw cycles and ultraviolet rays.
- Provides UV resistance for 12 months.

USES:

Suitable for use on commercial and residential cavity walls. May be applied to any properly prepared interior or exterior concrete, block, plywood, OSB board and exterior grade gypsum sheeting.

APPLICATION PROCEDURES:

PREPARATION:

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. A clean, dry and frost free surface is required. The substrate should be free of screws, sharp protrusions, or other matter that will prevent product adhesion.

New Concrete preparation - New concrete should be allowed to cure until free moving or bleed water has completely dissipated. Concrete block and walls that have been laid or poured late in the year should be allowed to gain sufficient strength for proper adhesion with this product.

Existing Concrete preparation - Existing concrete surfaces must be thoroughly cleaned prior to application. All previous coatings and foreign materials must be removed.

EQUIPMENT:

A typical sprayer is a Graco 733/833 capable of delivering 2.1 gallons per minute. Use a 3/8" pressure rated hose with a tip size of .035 to .039. Brush and/or roller application will work on smaller jobs or touch ups.

TECHNICAL DATA

Weight per gallon:	11.7 lbs
% Solids by Weight:	54% +/- 2%
Flash Point:	No flash, aqueous system
Drying Time:	2-4 hours 24-72 hours (dependent on ambient temperatures & humidity)
Tack Free Full Cure	
VOC Content:	< 100 g/l
A.I.M. Category:	Waterproofing Sealers and Treatments Maximum VOC 600 g/l

TESTING DATA

Applicable Standard	ASTM or ABAA requirements	Product Performance
ASTM E2178: Air Performance of Building Materials	<0.02 L/(s·m²) = 0.004 CFM/ft²	<0.0034 L/(s·m²) = 0.0008 CFM/ft²
ASTM E2357: Air Leakage of Air Assemblies	<0.20 L/(s·m²) = 0.04 CFM/ft²	0.006 L/(s·m²) = 0.00012 CFM/ft²
NFPA 285: Fire Propagation Characteristics	Pass/Fail	Pass
ASTM E84: Surface Burning Characteristics	N/A	Class A, <25 flame spread Class A, <450 smoke spread
ASTM E96: Vapor Permeability	(Declared Value)	17.619 Perms
ASTM C1305: Crack Bridging Ability	Pass	Pass
ASTM D1970: Seal Sealability	Pass	Pass
ASTM D412: Tensile Strength Elongation	N/A	248 psi 713%
ASTM D4541: Adhesion Strength	> 110 kPa	970 kPa 140.7 psi
ASTM D3274/D3273: Fungus and Mildew Resistance	N/A	Pass
ASTM E882: Accelerated Weathering	N/A	Pass
ASTM C666: Freeze/Thaw Resistance	N/A	Pass
AATCC Test Method 127: Water Resistance	> 55 cm	55 cm

APPLICATION:

Masonry:

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

Exterior Gypsum Sheeting:

Apply by spray, brush or roller directly to exterior sheathing panels (i.e. exterior drywall, oriented strand board (OSB) plywood and glass faced board). Fasten corners and edges with appropriate screws. Fasteners should be driven flush with the panel surface rather than countersunk. It is recommended that all joints and seams be pre- or post-caulked with TK-SUPER SEAL PE™ or pre- or post-taped with TK-CLIMATE FLASH™ 2200*. All gypsum corners need to be taped with TK-CLIMATE FLASH™.

*Do NOT pre-tape with TK-CLIMATE FLASH™ 2200 NL.

Penetrations:

Transition and Control Joints - Joints between 1/32" and 3/8" should be pre- or post-caulked with TK-SUPER SEAL PE™ or TK-CLIMATE FLASH™ 2200. 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™ 2200.

Flanges for Windows and Doors:

Flanges may be connected using one or a combination of the following: TK-SUPER SEAL PE™ or TK-CLIMATE FLASH™ 2200.

*Details for proper application are available on the TK Products website.

Large Openings:

Openings greater than 3/8" should be covered with TK-CLIMATE FLASH™ 2200 after coating the substrate with TK-AIRMAX® 2104 VAPOR PERMEABLE and allowing the membrane to dry. On expansion joints, apply TK-AIRMAX® 2104 VAPOR PERMEABLE directly to the substrate, allow to cure, then apply TK-CLIMATE FLASH™ 2200 overtop the cured membrane. Caulk edges with TK-SUPER SEAL™.

COVERAGE:

Note that the coverage rate is inversely affected by the texture and porosity of the substrate, therefore substrates that are very porous will result in lower coverage rates (less square foot per gallon coverage). One coat of TK-AIRMAX® 2104 VAPOR PERMEABLE is sufficient when applied at 36-40 square feet per gallon, or 40-45 wet mil film. Any area that is thin may be recoated. Total cured coating will be 18-24 dry mils.

CLEAN UP:

Equipment may be cleaned with a solution of mild detergent and water.

LIMITATIONS:

- Do not apply when ambient or substrate temperature is below 40°F or is expected to fall below 40°F within the cure time of the coating.
- Do not apply if precipitation is expected within the cure time of the coating.
- Cure times are significantly extended by low temperatures and/or high humidity. In ideal conditions (70°F/50% relative humidity), cure time is approximately 24 hours.
- Do not apply to wet, damp or frosty substrates.
- Maximum allowable moisture content of the substrate is 17%.
- This product should not be applied over silicone rubber sealants or caulks.
- This product should be fully cured before rigid insulation is installed over the membrane.
- This product is not resistant to aromatic, ketone or ester-type solvents.

FIRST AID:

- Consult this product's safety data sheet for additional health and safety information. Safety Data Sheets are available through TK distributors, the TK office and the TK website.

AVAILABILITY:

TK-AIRMAX® 2104 VAPOR PERMEABLE is available through TK Distributors. Contact TK Products for the nearest distributor.

Available in Dark Gray color.

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

FOR PROFESSIONAL USE ONLY

AIRMAX® SYSTEM DETAIL ACCESSORY PRODUCTS

The following tapes and caulks have been developed as accessory products for the AIRMAX® System

- CLIMATE FLASH™ Flashing Tape
- SUPER SEAL PE™ Polyether Joint Sealant
- 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.

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.

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.