

# TK-AIRMAX® 2105 VP

## Vapor Permeable Solvent-Borne Air/Weather Barrier

Fluid Applied Air/Weather Barrier | Division 7: Section 072500/072726

Item No. TK-2105

### PRODUCT DESCRIPTION

TK-AIRMAX® 2105 VP is a vapor permeable, high performance, solventborne, silicone (SPE) based liquid membrane air/weather barrier for use on both commercial and residential concrete, masonry, exterior gypsum, plywood and OSB board. TK-AIRMAX® 2105 VP weather barrier creates a seamless, tough film to act as a solid barrier against air leakage (infiltration/exfiltration), resulting in energy savings while also restricting moisture 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 waterproofing membrane to deflect 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:

May be applied to any properly prepared exterior concrete, block, precast panels, plywood, OSB board, CMU and exterior grade gypsum sheathing.

### 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 bond breakers, 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 (17% or less moisture content). 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 of bond breakers prior to application. All previous coatings and foreign materials must be removed.

#### EQUIPMENT:

A typical sprayer is a Graco 733/833 with a tip size of 0.033 to 0.037. Use 100' of 1/2" hose connected to the pump, with an additional 50' of 3/8" hose connected to the 1/2" hose. Roll/brush and/or power roller application will also work. It is required that solvent resistant spray equipment (siphon tube, pump, hoses and transfer pumps) be thoroughly flushed with Xylene prior to and following use, or if pump is to sit idle for more than one hour. Leftover material will gel/cure and result in damage to the equipment.

#### APPLICATION:

##### Masonry:

CMU mortar must be tooled at a minimum. Any voids, form tie holes and honeycombed areas should be filled and repaired prior to application of air barrier. Remove loose mortar, smears, dirt and bond breakers that will affect proper adhesion. Remove mortar droppings from form ties, brick anchors and footer.

### TECHNICAL DATA

Weight per gallon:	10.79 lbs
% Solids by Weight:	92%-93%
Flash Point:	40°F
Drying Time:	Tack Free 2-12 hours Full Cure 24-72 hours (dependent on ambient temperatures & humidity)
VOC Content:	< 100 g/l
A.I.M. Category:	Waterproofing Sealers and Treatments Maximum VOC 600 g/l

### TESTING DATA

Applicable Standard	Product Performance
<b>ASTM E2178:</b> Air Performance of Building Materials	<0.0014 L/(s•m²) = 0.00028 CFM/ft²
<b>NFPA 285:</b> Fire Propagation Characteristics	Pass
<b>ASTM E96:</b> Vapor Permeability	8.86 Perms
<b>ASTM C1305:</b> Crack Bridging Ability	Pass
<b>ASTM D1970:</b> Seal Sealability	Pass
<b>ASTM D412:</b> Vulcanized Rubber/ Thermoplastic Elastomers	400% 175 psi
<b>ASTM D4541:</b> Adhesion Strength	CMU = 176 psi Gypsum Sheathing = 29 psi (gyp sheathing facing failed before air barrier results could be obtained) Metal Wall Panel = 151 psi
<b>ASTM D3274/D3273:</b> Fungus and Mildew Resistance	Pass
<b>ASTM D624B-91:</b> Resistance to Tearing	35 psi
<b>ASTM C661:</b> Shore A Hardness	30
<b>ASTM C666:</b> Freeze/Thaw Resistance	Pass
<b>AATCC Test Method 127:</b> Water Resistance	Pass
<b>DIN EN 14891, A.6.2:</b> Tensile Adhesion with Tiles	100 psi

Apply TK-AIRMAX® 2105 VP by spray, brush or roller directly to the surface.

#### **Exterior Gypsum Sheathing:**

Fasten corners and edges with appropriate screws. Fasteners should be driven straight and flush with the panel surface rather than countersunk. It is recommended that all joints and seams are to be pre- or post-caulked with TK-SUPER SEAL PE™, making sure to knife the caulk and allow to cure before application of TK-AIRMAX 2105 VP. Joints and seams may also be post-taped with TK-CLIMATE FLASH™. All inside and outside corners need to be post-taped with TK-CLIMATE FLASH™ (6"). Allow TK-AIRMAX 2105 VP to cure before applying tape or caulk.

Apply by spray, brush or roller directly to exterior sheathing panels (i.e. exterior drywall, oriented strand board (OSB) plywood and glass faced board).

#### **Penetrations:**

Transition and Control Joints - Joints between 1/32" and 1/2" should be pre- or post-caulked with TK-SUPER SEAL PE™ or post-taped with TK-CLIMATE FLASH™. If post-applying TK-AIRMAX 2105 VP over caulking membrane, allow caulk to cure before applying TK-AIRMAX® 2105 VP. Larger Joints - Joints larger than 1/2" should be detailed with TK-CLIMATE FLASH™ prior to application of TK-AIRMAX® 2105 VP.

#### **Windows and Doors:**

Apply AIRMAX® 2102 NON-PERMEABLE to all openings where a primary and/or secondary seal will be installed ovetop of the air barrier, or where TK-CLIMATE FLASH and/or TK-SUPER SEAL will be used to detail windows, doors or rough openings. Use only pre-approved sealants or caulks.

#### **Large Openings:**

On openings greater than 3/8", apply TK-AIRMAX® 2105 VP to the substrate, allow to fully cure, then cover with TK-CLIMATE FLASH™. On expansion joints, apply TK-AIRMAX® 2105 VP directly to the substrate, allow to cure, then apply TK-CLIMATE FLASH™ ovetop the cured membrane.

#### **Thru-Wall Flashings:**

Wherever installing a thru-wall flashing over cured TK-AIRMAX 2105 VP, it must be mechanically fastened with the top edge caulked and knifed using TK-SUPER SEAL™.

#### **Roofing:**

Apply TK-AIRMAX® 2102 NON-PERMEABLE where water base roof adhesives will be used to secure roofing membranes.

#### **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® 2105 VP is sufficient when applied at 64-89 square feet per gallon, or 18-25 wet mil film (16-22 DFT) . Any area that is thin may be recoated up to one month after initial application..

#### **CLEAN UP:**

Use TK-00 XYLENE to clean tools and equipment. Pump solvent through the spray equipment to remove material residue which can cure and clog the hose and pump assembly. Once the material cures, it is inert to clean-up solvents. It is required that solvent resistant spray equipment (siphon tube, pump, hoses and transfer pumps) be thoroughly flushed with Xylene

prior to, following use, or if pump is to sit idle for more than one hour. Leftover material will gel/cure and result in damage to the equipment.

#### **LIMITATIONS:**

- SAFETY PRECAUTIONS: A fitted organic/carbon filter respirator, and appropriate eye protection, must be worn at all times during application of this product.
- Ambient and substrate temperatures should be above 0°F at the time of application.
- This product will not freeze, however it should be warmed and temperature maintained at 55°F or warmer before use. Product will flow/spray better at higher temperatures.
- Minimize exposure of the pump to cold weather and keep the hose wrapped until use. Do not pull excess hose from the reel.
- Do not apply if precipitation is expected within the cure time of the coating.
- Cure times are extended by low temperatures and/or low humidity. In ideal conditions (70°F/50% relative humidity), cure time is less than 24 hours.
- Do not apply to wet, damp or frosty substrates.
- Silicone rubber sealants and caulks should not be applied over this product without testing beforehand.
- This product should be fully cured before rigid insulation is installed over the membrane.
- This product cures through a reaction with atmospheric moisture. It is advised to use the entire contents of the container upon use as exposure of unused contents to the atmosphere can result in viscosity increases or gellation.

#### **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® 2105 VP 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.

#### **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.

11/17 Last Rev. 08/17

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