



PRODUCT DATA SHEET

SP-050R Concrete Moisture Mitigation Coating

DESCRIPTION

AIM SP-050R Concrete Moisture Mitigation Coating is a patented one component copolymer primer designed to treat concrete surfaces showing high moisture levels (up to 100% RH). The AIM SP-050R formulation is the only known water-based coating to pass ASTM E96 moisture mitigation testing as a class 1 water vapor barrier. Used on concrete decks or slabs for all types of construction including flooring, parking decks, and roof decks.

A polymerization of vinylidene chloride (PVDC) is used as the AIM SP-050R primary component. This ingredient is combined with other monomers (and water) to create a product that functions to pack the capillaries of a concrete slab. When the product is applied to the concrete surface, it coats the surface and finds its depth. As the water component evaporates, a microfilm of solids remains on the surface of the slab with the remaining product penetrating into the concrete, forming a "mitigation zone" within the upper portion of the slab. The "mitigation zone" is a matrix of the solids that pack the capillaries and form a lattice-like structure in the upper portion of the slab.

AIM SP-050R dries clear. Designed for rapid turnaround with maximum protection. AIM SP-050R exceeds ASTM F3010-13 requirements for vapor reduction when tested in accordance with ASTM E96 (< .1 perm).

AIM SP-050R is water-based, and the product does not contain any harmful, hard to use chemicals such as epoxy resins and corrosive amines that are damaging to skin upon contact. AIM SP-050R is a styrene-free, proprietary polymer emulsion.

WHERE TO USE

- AIM SP-050R can be used on concrete roof decks where protection from water vapor and moisture is a concern or question.
- Exterior, new, or existing, lightweight, or structural concrete.
- Substrates with up to 100% RH.
- Ideal for newly poured concrete roof decks. Helps to accelerate time of roof installation. Significantly reduces time required for curing of "green concrete" prior to the install of the roof membrane or roof system.

LIMITATIONS

- Ambient and concrete surface temperatures must be at least 40° F (4° C)
- Optimum installation temperatures are between 45° F and 100° F
- Do not install over-contaminated or non-porous substrates.
- Do not allow product to freeze
- Do not thin product

SUBSTRATE REQUIREMENTS

- In order to apply SP-050R, a concrete slab must be structurally sound, clean, and porous for the material to function properly.
- SP-050R can typically be applied directly over newly poured concrete within 3 days of being poured.
- If there are cracks that need to be filled, treat with the SP-050R prior to filling. To do so, use a brush to apply SP-050R to the crack and then follow the normal procedure.

CHECKING THE SUBSTRATE

- Concrete deck must be structurally sound to walk and work on.
- Must be a Concrete Surface Profile (CSP) of 2-3.
- The concrete must be porous before applying product. Perform a water-droplet test per ASTM F3191.
 - Place a single drop of potable water (approximately 0.05 mL) on the substrate surface using a pipette, water dropper, straw, etc., after the substrate surface has been prepared.
 - Measure the length of time substrate to absorb the water,
 - < 1 minute Porous/Absorptive. Substrate is acceptable to proceed with SP-050R.
 - > 1 minute Non-Porous/Non-Absorptive. Consult AIM, most likely additional mechanical prep of the substrate is needed.

APPLICATION

- Product is ready to use when opened. A light stir with a mixing stick is recommended – DO NOT USE A MIXER OR DRILL!
- Saturate a 3/8" nap roller and apply uniformly in a singular direction, back roll, and cross hatch.
- Once first coat has dried repeat this process/
- Typical net coverage rate is 200-250 square feet per gallon. (Note: Coverage may vary based on substrate conditions.)
- Do not over apply – two light coats are specified.
- First coat will always use more material than the second coat.
- Do not pour material directly on substrate as this will not provide uniform coverage and will waste material.
- Do not allow to puddle
- If Concrete Surface Profile (CSP) is greater than 3, an additional coat may be necessary.

DRY TIME

- When applied, product will look "milky white," and will penetrate the concrete almost immediately, and dry CLEAR.
- First coat dries in 20-30 min depending on ambient conditions.
- Second coat will look "milky white," and dry clear.
- If material does not dry to touch after one hour or does not go "clear" – your slab is likely not porous.

CLEANUP

Clean tools and equipment with soap and water immediately after use. Dispose of all materials in accordance with local, state, and federal regulations.

PRODUCT PERFORMANCE PROPERTIES

| | |
|--------------------------|--|
| Solids Content - Weight | 34% |
| Solids Content - Volume | 23% |
| VOC's | < 50 g/l |
| Moisture Loss | < 0.40 kg/m ² |
| Net Permeance | <0.1 perms |
| Coverage | 400 – 500 square feet / US gallon (per coat) * |
| | Minimum rate 300 sq. ft.; maximum 500 sq. ft. |
| Dry Time (73°/ 50%RH) | 60 minutes |
| Maximum time to recoat | 36 hours |
| Adhesion | ASTM D7234 |
| Water Vapor Transmission | ASTM E96-16 |

* Coverage may vary based on substrate conditions,

PACKAGING AND HANDLING

| | |
|---------------|--------------------------|
| Packaging | 5 US gallon pail (18.9L) |
| Shelf Life | 12 months unopened |
| Consistency | Liquid |
| Color | White, dries clear |
| Storage Range | Between 65° F - 90° F |

FOR PROFESSIONAL USE ONLY

- AIM SP-050R is intended for use by trained/authorized roofing professionals only.
- Refer to product SDS for specific data related to health, safety, and handling precautions.

LIMITED WARRANTY

TO THE EXTENT ALLOWED BY LOCAL LAW, EXCEPT AS SET FORTH BELOW, SELLER MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE WITH RESPECT TO THE GOODS HEREIN SOLD. THERE ARE NO OTHER WARRANTIES OF ANY KIND EXPRESS OR IMPLIED BEYOND THE TERMS SET FORTH ON THE FACE HEREOF. NO EMPLOYEE OR AGENT OF SELLER IS AUTHORIZED TO ALTER THE TERMS HEREOF.

Seller warrants that this product shall be free of any defect in material or workmanship under normal use for a period of 12 months from the date of purchase. This warranty does not extend to any defect or failure caused by misuse and/or incorrect application.

LIMITATION OF LIABILITY: In the event of a defect or failure falling under this warranty, Buyers sole remedy shall be refund of the purchase price or replacement of the defective material, at Seller's option. Under no circumstances shall Seller be liable for any losses or damages caused by this product, whether direct, indirect, special, incidental, or consequential damages, whether based on contract, tort (including negligence) or any other legal theory.



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