Moisture-related, solvent-based epoxy coating failure

Advantages of a Vapor-Clear floor coating over conventional epoxy:

- no bubbling, blistering, peeling or delamination
- no limits on moisture emission rates or concrete internal relative humidity
- no limits on slab pH levels, no need for moisture-testing prior to use
- no toxic fumes or odors during application, can be applied in occupied buildings
- no solvents, water-reducible and ecologically safe, water clean-up
- no heavy profiling, uses metal-bond diamond technology to prep concrete
- no high-mil build thickness needed for performance, high spread rates

Similarities of Vapor-Clear to conventional epoxy:

- highly chemically resistant, ideal for aerospace, high foot traffic and industrial applications
- available in 250 colors, including transparent for a polished concrete concrete look
- colored paint chip or sand broadcast capable
- high wear resistance, re-coatable, hygienic, easy to clean

Characteristics of Vapor-Clear floor coatings:

- tensile strength: >6,000 psi
- compressive strength: >12,000 psi
- ultimate flexural strength: >10,000 psi
- cured coating hardness: 85 Shore D
- coefficient of friction: 0.5 per ASTM C-1028
- abrasion resistance: 28 mg loss (Taber)
- operating range: -40 to 250 degrees F.
- hydrostatic pressure resistance: 45 psi
- moisture limits: unlimited (>25 pounds per 1,000 sq.ft./24 hrs.)
- alkalinity (pH) limits: 14 pH
- can be applied to 24-hour old concrete substrates

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**Specific Use**

Vapor-Clear is the high-performance, ecologically-friendly, low-cost alternative to conventional high-build epoxy floor coatings. Tough and durable, it can even withstand forklift traffic but offer a beautiful aesthetic finish in over 250 colors as well as transparent.

Vapor-Clear is engineered to be semi-permeable to allow trapped concrete moisture to slowly evaporate over time and will not bubble, blister, peel or flake off surface due to high moisture vapor emission, internal relative humidity or high pH levels.

Vapor-Clear uses diamond-grinding technology (similar to polished concrete but with far fewer steps) rather than heavy shot-blasting in order to profile concrete. This results in a smoother, flatter surface which yields far higher spread-rates and therefore much lower material costs.

Vapor-Clear is easy to maintain by using conventional floor waxes or by auto-scrubbing using detergents. We recommend waxing since it is the easiest to clean and lowest in cost.

Vapor-Clear can be used indoors or outdoors with an optional urethane top-coat for UV stability and is elastomeric so that it can expand or contract along with thermal changes in the concrete.

Ideal for California LEED™ projects looking for “green” alternatives to epoxy applications, indoors or outdoors, Vapor-Clear qualifies under EQc4.2 and is made in Southern California, the capital of environmental responsibility.

Water-reducible, VOC compliant and highly user-friendly, Vapor-Clear uses water for clean-up instead of dangerous solvents. With a long pot-life and working time, Vapor-Clear can be applied by novice users from home-owners to facility managers without requiring highly experienced or certified applicators.

Advanced Moisture Control, Inc. provides extensive application and use instruction in addition to superior technical support services.

**Governmental / Environmental Approvals**

All Advanced Moisture Control, Inc. Vapor-Clear products fulfill all EPA, Federal, State, County and City requirements for low odor and VOC compliant material mandates.
PREPARATION

All concrete surfaces, new or old, shall be clean and free of paint, dry wall mud, oil and any surface contaminants. Vapor-Clear may be applied on brand new, “green” concrete or on existing slabs regardless of age.

All existing concrete surfaces are to be free of carbonation, scratch resistant and absorbent. Diamond grinding is the preferred method of profiling, although a shot blaster can be used as long as “corn rows” are not created that may telegraph. In the event of an excessively rough texture, micro-balloons or fumed-silica (such as Cabosil brand) may be used if a super glassy surface is desired.

Contact Advanced Moisture Control, Inc. for specifics on diamond grinding and measures to assure a proper surface profile before applying Vapor-Clear.

APPLICATION METHOD

Vapor-Clear should be allowed to acclimate to the ambient temperature environment of application for 24 hours prior to mixing and application where extreme temperatures may occur. In areas of cold climate or inadequate acclimation time, contact us for specific recommendations. Vapor-Clear is packaged in pre-measured 1 or 5 gallon units that are combined at the job site according to written instructions, including water for reduction. Once mixed, material pot life is 3 hours at 70 degrees F.

Vapor-Clear is rolled on using a 3/8 inch nap roller. Squeegees can be used to help spread out material. Always back-roll material in a north/south and then east/west direction to help distribute material uniformly.

Apply in one or two coats. If applied in one-coat, back-roll the material after 20 minutes to ensure pinholes are removed. If applied in two coats, apply second coat before the first coat has completely dried. Wear cleated shoes during application. Drying times depend on ambient conditions. Vapor-Clear can be applied between 40 and 120 degrees F. At 70 degrees and 50% relative humidity, Vapor-Clear will be tack-free in about 4 hours.

A sacrificial wax coat is recommended as a finish layer so that surfaces can be easily maintained. Contact Advanced Moisture Control, Inc. for more information on floor care procedures with Vapor-Clear coatings.

CLEAN UP AND DISPOSAL

Wash skin and tools with water. Empty containers may be recycled or disposed of. Environmentally safe for land fills.

FLOORING COMPATIBILITY

if for some reason at a future date floor coverings are desired, Vapor-Clear is compatible with high-quality flooring adhesives, cement compounds with primers and resinous coating systems and may act as a protective moisture vapor barrier.

STORAGE

Store material in normal ambient living environments. Protect from freezing or excessive heat.

LIMITED WARRANTY

Advanced Moisture Control, Inc. guarantees the integrity of the Vapor-Clear synthetic polymer concrete moisture control material to be free of manufacturing defects, remain adhered to the substrate and not be affected by moisture or alkalinity for a period of five (5) years when installed by certified applicators, subject to the terms of the published warranty. The limited warranty is for coating failure caused by concrete moisture vapor emission and alkalinity. The warranty covers the cost of the Vapor-Clear floor coating system, preparation and installation compounds and all labor charges associated to repair or replace materials in areas exhibiting failure caused by concrete moisture vapor emission and alkalinity damage. Please refer to published warranty for specific details of warranty coverage and exclusions.

PERFORMANCE EXPECTATIONS

The Vapor-Clear floor coating is a tough, durable, chemically-resistant and hygienic coating material that is expected to last well beyond the five-year limited warranty period with normal maintenance. A sacrificial wax-coating should be applied and maintained over the Vapor-Clear floor coating in order to make clean up much easier. Vapor-Clear will hold up to high foot traffic and rolling loads, but is only as impact-resistant as the slab itself. Used in all kinds of facilities from industrial manufacturing to food processing, Vapor-Clear is an environmentally friendly material with a long history of applications.

Consult with Advanced Moisture Control, Inc. for more information.

Advanced Moisture Control, Inc.