



# Excessive Concrete Moisture Is The #1 Cause Of Flooring Failures









In the early life of the concrete slab, water is present in abundance and must be retained during the initial curing period to produce high quality concrete. However, the concrete must give up most of its water during the subsequent drying period to become suitable for low permeability flooring.

When low permeability flooring is installed over concrete with unacceptably high moisture content, this moisture will migrate upward through the slab, dissolve alkalis inherently present in the concrete and transport this corrosive material to the concrete/flooring interface. This alkalinity will become concentrated and this moist, high pH environment at the flooring bond line can cause flooring failure. This failure may be evidenced by disbonding, adhesive breakdown, osmotic blisters, staining or microbial growth with the related reduction in indoor air quality.

Concrete moisture is the number one cause of flooring failure and accounts for billions of dollars of loss annually. Liability exposure for moisture related flooring failures may extend to several members of the construction team.

# Other Contributing Factors

#### LACK OF EFFECTIVE VAPOR RETARDER

The sub-slab vapor retarder prevents ground moisture from entering the slab. It is often referred to as the first line of defense against concrete moisture problems. Unfortunately, vapor retarders are often improperly placed or omitted from the concrete specification.

#### LACK OF ACCURATE MOISTURE TESTING

It is imperative that the concrete's moisture condition be determined before the installation of low permeability flooring. An understanding of these tests and the proper execution of them has remained elusive to many in the flooring industry.

VAPORSOLVE® MOISTURE MITIGATION

Let us **solve** your moisture problems

## VAPORSOLVE PRIMER

Water-based epoxy material with deep penetration and adhesion to concrete. Superior performance to 100% solid remediation materials over affected concrete. Eliminates or reduces concrete outgassing.

### **VAPORSOLVE LP**

Low viscosity and excellent substrate wetting capabilities to promote penetration and adhesion. The special hydrophobic curing agent allows for adhesion to damp or wet concrete.

# VAPORSOLVE JOINT FILLER

Non-shrinking, semi-rigid epoxy paste used for filling joints and cracks in concrete that will receive VaporSolve Systems. Resists long-term moisture and alkalinity.

## VAPORSOLVE TIF-COAT

Fast drying
water-based epoxy
formulated for use over
VaporSolve Moisture
Remediation Systems.
It insures the adhesion
of subsequently applied
cementitious overlays.

# VaporSolve Moisture Remediation Systems

VaporSolve Moisture Remediation Systems are highly specialized epoxy coating systems formulated to isolate moisture sensitive flooring from all levels of concrete moisture. VaporSolve systems are used when concrete has a known moisture problem, as a preventative measure when concrete substrates do not have a vapor retarder in place and future moisture conditions cannot be predicted. VaporSolve systems have proven successful in a wide range of application scenarios over millions of square feet. VaporSolve Ultra System meets the requirements of ASTM 3010



VaporSolve LP
VaporSolve Joint Filler
(if needed for filling joints & cracks)
Concrete



### THE VAPORSOLVE BASIC SYSTEM

The VaporSolve Basic System is a single coat application of VaporSolve LP applied at 16 mils dry film thickness over concrete that has never been treated with reactive silicate. The single coat application improves the economics of your project by saving a trip to the job site.



VaporSolve LP
VaporSolve Primer
VaporSolve Joint Filler
(if needed for filling joints & cracks)

2

#### THE VAPORSOLVE ULTRA SYSTEM

The VaporSolve Ultra System is the most cost effective substrate moisture remediation system on the market today. Utilizing 3rd generation polymer technology to provide the highest performance of any coating, topping or

laminate product installation using VaporSolve Primer over the concrete and finishes with VaporSolve LP. System thickness is 16 mils. This system must be used if reactive silicates have been previously applied to the concrete or if the history of the concrete cannot be positively determined.



Effective Regardless of Concrete Moisture Levels



Meets or Exceeds ASTM F3010, Perm Rate 0.01 perm



Millions of Square Feet Successfully Treated



Excellent Adhesion Over Silicate Contaminated Concrete (Ultra System only)



# **Existing Construction Warranty**

\*A 10 year limited materials warranty is offered when product is applied on **EXISTING CONSTRUCTION** only and when applied by an ICP approved applicator, as outlined in our warranty document. Contact your APF sales professional for complete details.



#### **New Construction Warranty**

\*A 10 year performance warranty is offered when product is applied on **NEW CONSTRUCTION** only and when applied by an ICP approved applicator, as outlined in our warranty document.

Contact your APF sales professional for complete details.





150 Dascomb Rd., Andover, MA 01810 • 1.866.667.5119 • icpgroup.com apfepoxy.com | APF Polymer Surfaces, a brand of ICP Group

©2023 APF Polymer Surfaces and other marks on this brochure are trademarks of ICP.