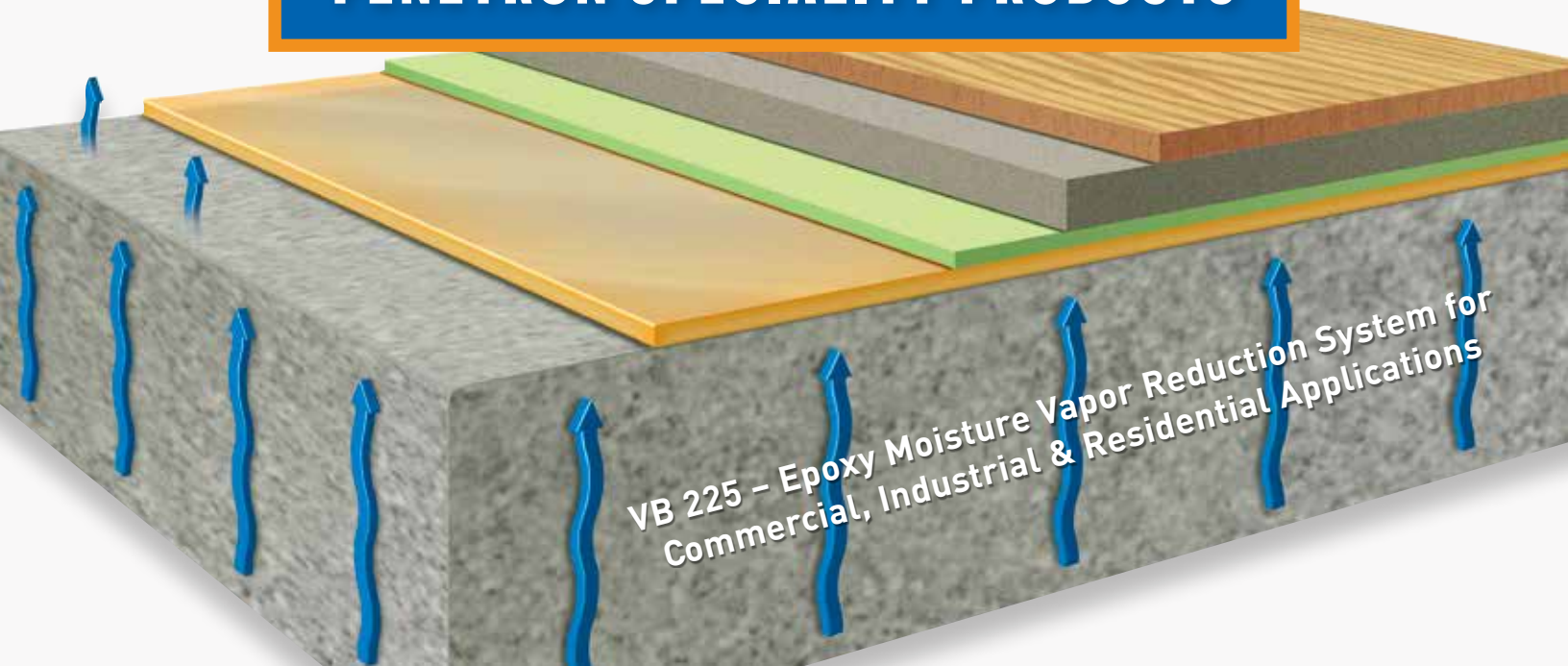


PENETRON[®]
SPECIALTY PRODUCTS



FOR THE BEST IN FLOOR PREPARATION PRODUCTS

PENETRON SPECIALITY PRODUCTS



**VB 225 - Epoxy Moisture Vapor Reduction System for
Commercial, Industrial & Residential Applications**



Green Mountain Coffee R&D Center, Waterbury, VT

A specialist in organic, fair trade, and specialty gourmet coffees, Green Mountain expanded its production development facility in two stages: 15,000 sq. ft. (1,394 m²) and 18,000 sq. ft. (1,672 m²) of new concrete were treated with VB 225, PRIMER STX 100 and LEVELINE 15; final flooring was Tarkett sheet vinyl and Milliken Carpet Tile.



MOISTURE MITIGATION

Protection from moisture vapor in the floor



Testing for moisture levels should be done before installing any type of floor covering or finish on a concrete substrate.

Even when the concrete slab is not directly exposed to a source of moisture, tests often show unacceptable levels of moisture that can endanger the durability of the final floor covering or finish.

External drying of the concrete slab can take many months, usually not a realistic solution for most construction projects. Installing a moisture mitigation system then becomes the best solution to protect the final finish from moisture vapor and to keep adhesives from contact with the high pH in the concrete.

Every flooring project is different, with specific challenges and demands. PENETRON Specialty Products (PSP) is a recognized innovator of proven, permanent flooring preparation solutions. The VB 225 moisture mitigation system protects all types of floor toppings from moisture damage.

Durable. Invulnerable. High performance. VB 225.

VB 225 is a one-coat moisture vapor reduction system based on a proprietary blend of epoxy resins. VB 225 is especially formulated to prevent floor failures on concrete substrates containing elevated levels of moisture vapor emission.

Our unique formulations are 100% solid epoxy, contain no fillers and are applied in a single coating. VB 225 can be applied to fresh concrete after 5-7 days to help accelerate flooring projects. It can withstand 100% relative humidity (RH) (ASTM F2170) and up to pH 14.



VB 225: Permanent protection.

The remarkable bonding properties of VB 225 permanently bond the material to the properly prepared substrate. Once applied, it won't come off; proven by superior pull / bonding test results that consistently exceed industry standards. Obviously, this makes it highly effective as a barrier to any moisture vapor rising from the concrete. No moisture can penetrate into the finished flooring.

Boston Children's Hospital, Boston, MA

A top-ranked pediatric medical center, the Boston Children's Hospital added a 10-story building with over 80,000 sq. ft. (7,432 m²) of flooring treated with VB 225, PRIMER STX 100 and LEVELINE 15 and covered with Nora rubber flooring.



University of Massachusetts Life Sciences Laboratories, Amherst, MA



This new imaging and computation lab center had 100,000 sq. ft. (9,290 m²) of new concrete with elevated moisture content. Flooring with a mitigation system (VB 225, PRIMER STX 100 and LEVELINE 15) was installed for immediate installation of the final floor cover.



Dominion Motors Heritage Site Vancouver, BC, Canada

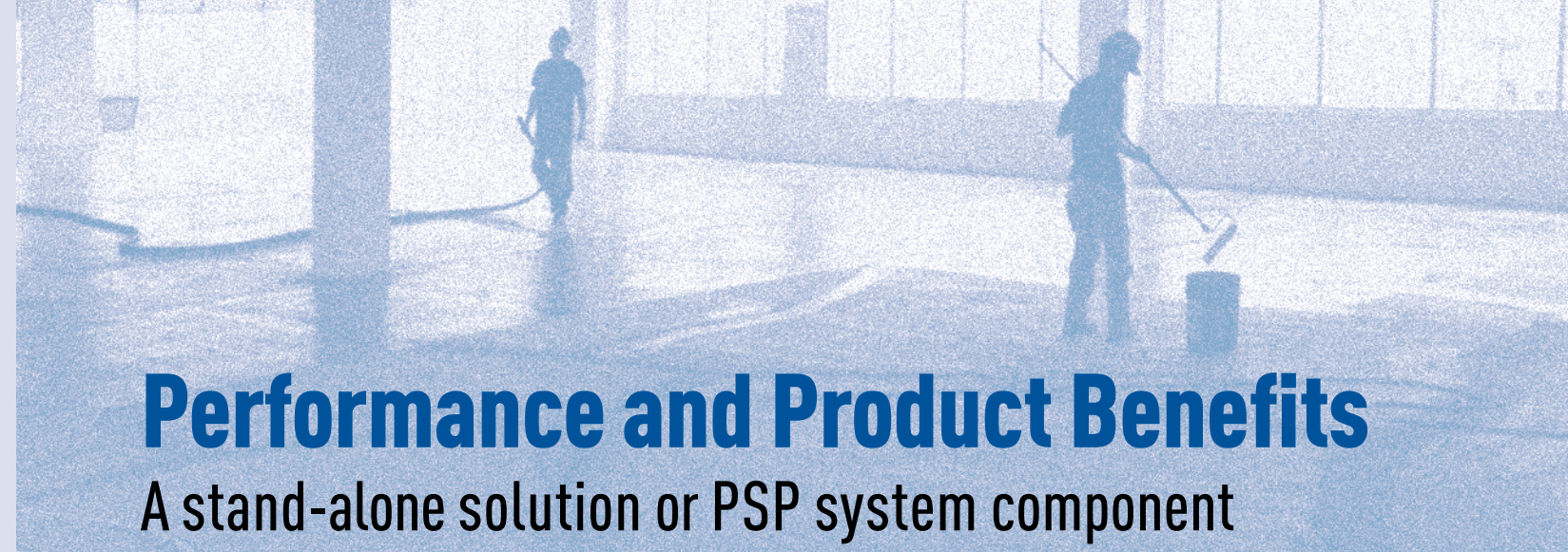
Originally built in 1925 as **Dominion Motors**, a Ford auto dealership and garage, this site was completely transformed into a premium office location. Following strict heritage standards, 30,000 sq. ft. (2,787 m²) of floor space were restored with **VB 225, STX 100 PRIMER** and LEVELINE 15 underlayment.





Mary A. Dryden Veterans Memorial School, Springfield, MA

Reconstruction of a wing obliterated in a tornado included new grades 3-5 classrooms and renovation of all floors in the school. Over 12,000 sq. ft. (1,115m²) of flooring was treated with VB 225, PRIMER STX 100 and LEVELINE 15; the finished flooring is Nora rubber flooring.



Performance and Product Benefits

A stand-alone solution or PSP system component



Bright Horizons, Cambridge, MA, USA



The renovation of the Bright Horizons pre-school facility needed to block high vapor emissions and maintain good air quality in the below-grade structure. About 8,000 sq. ft. (743 m²) were treated with VB 225, PRIMER STX 100 and LEVELINE 15, and covered with VCT flooring.

VB 225 key features:

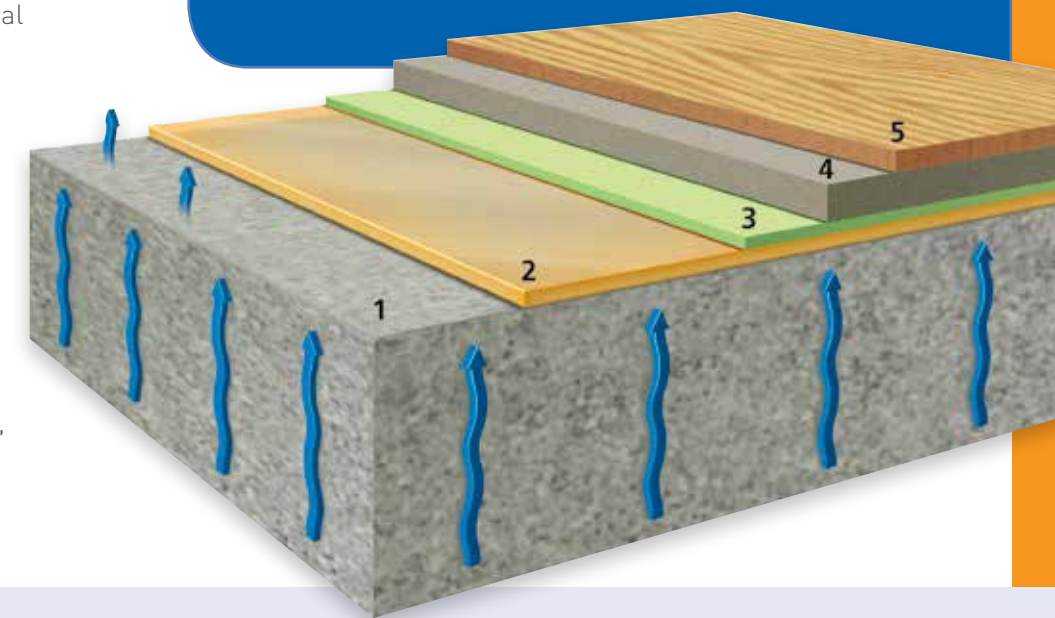
- Formulated to treat new or existing concrete floors
- Complies to all state and federal VOC regulations
- Formulated to treat extreme moisture vapor and/or alkaline conditions
- Low odor and fast cure
- Perfect for virtually all types of flooring and coating systems
- Up to a 20-year full system Direct Bond replacement warranty
- “Fail Safe” installation program —a PSP exclusive

How the PSP System works:

Performance and Product Benefits

A stand-alone solution or PSP system component

1. Concrete floor substrate
2. VB 225 vapor barrier layer
3. PRIMER STX 100 primer for the underlayment
4. LEVELINE 15 underlayment
5. Final flooring



VB 225 is routinely used as a moisture reduction solution for commercial flooring projects – together with cementitious leveling materials – and increasingly used as a stand-alone moisture reduction product by epoxy flooring contractors, gymnasium flooring installers and decorative topping applicators.

VB 225 has been widely used for applications in offices, hospitals, schools, super-markets, manufacturing facilities, airplane hangars, residential housing, and many others.

VB 225 complies with all state and federal VOC regulations, and also meets LEED construction standards. With a VOC content of <10 g/l, VB 225 can be installed in sensitive areas such as hospitals, schools and grocery stores. Due to VB 225's low odor and fast curing times, it can even be applied in occupied buildings with minimal disruption.

← Carolina Medical Centers, Northeast Center, Concord, NC

The kitchen wash area of this healthcare center needed completely new floors with drains; the deep-fill installation (approximately 2,000 sq. ft. (182 m²) used the complete PSP flooring system (VB225, LEVELINE 15 and SURFIX FEP). The final layer was a 3/8" thick sheet rubber flooring (Protect All).





← **Alfred I. DuPont Hospital for Children, Wilmington, DE**

A significant expansion of the hospital added over 280,000 sq. ft. (26,000 m²) of new floor space. PSP provided vapor mitigation and floor leveling systems with the VB225 vapor barrier system, STX 100 primer, LEVELINE 15 self-leveling underlayment, FEP and SKM skim coatings, RENEW CR floor topping and PENESEAL FH sealer. The final floor covering included Nora Rubber, Altro and Mohawk carpet tiles.

The PSP Flooring Solution

PENETRON Specialty Products develops and manufactures high quality flooring preparation solutions for a wide range of flooring applications. These products are designed to make up a complete system.

The typical PSP subfloor system includes—but is not limited to—the following products:



VB™ 225 – VB 225 is a one-coat moisture vapor reduction system consisting of a unique combination of epoxy resins and other chemical compounds. VB 225 is formulated to prevent floor finish failures on concrete slabs containing elevated levels of moisture vapor emission.



LEVELINE™ 15
– LEVELINE 15 is a premium, calcium aluminate-based, interior, self-leveling under-layment that may be used as a wear surface in light duty applications (with appropriate sealers). Its long working time, low shrinkage and superior leveling properties make it ideal for many demanding interior applications.



VB™ 225 FS – Identical in composition to the regular VB 225, the VB 225 FS version is an extremely fast-setting moisture vapor reduction system that is ideal for projects requiring a very fast turnaround.



PRIMER STX 100™
– PRIMER STX 100 is a premium concentrated acrylic primer for use over virtually every substrate – from concrete to epoxy, wood and metal. Its unique ability to bond to both porous and non-porous substrates makes it ideal for varying jobsite conditions.



SURFIX™ FEP – SURFIX FEP is a cement-based, rapid setting, trowelable skim coat and patching compound used to smooth subfloors prior to installing a finished floor covering. It combines chemically with the mix water, and is compatible with all approved adhesives for use over concrete. SURFIX™ FEP has a creamy consistency, can be feather-edged, and has exceptional coverage and provides a durable bond.

PENETRON Specialty Products

offers a complete line of primers, patching compounds, resurfacers, densifiers and sealers. Contact your PSP representative for a complete overview of our products or visit our website at www.penetransp.com.

→ **Douglas Elementary School, Douglas, MA**

This recently completed new elementary school building for 550 students features 30,000 sq. ft. (2,787 m²) of floor treated with VB 225, PRIMER STX 100 and LEVELINE 15. The finished floor was VCT flooring.



← **Old Jacksonville Court House, Jacksonville, FL**

Renovation of five-story Old Federal Courthouse in downtown Jacksonville included treatment of the 44,000 sq. ft. (4,090 m²) below-grade basement floor with VB 225, STX 100 PRIMER and RENEW WS. Interior work met historical guidelines; final flooring was a clear sealer and Tremco Vulkem coating system.



→ **Dana Farber Cancer Institute, Boston, MA**

One of the leading cancer treatment centers in the country for children and adults, the Dana Farber Cancer Institute recently renovated over 60,000 sq. ft. (5,574 m²) of flooring with a full PSP treatment of VB 225, PRIMER STX 100 and LEVELINE 15 and covered with Nora rubber flooring.



PENETRON SPECIALTY PRODUCTS



**FOR THE VERY BEST
IN FLOOR PREP.**

PENETRON Specialty Products is part of

The PENETRON Group, a recognized global leader in concrete protection systems. The PENETRON Group has locations in all key markets and facilities in Asia, Europe, North America and South America, and offers products and technical support around the world through a comprehensive network of distributors.

PSP offers reliable and high-quality products and solutions for the installation of floor coverings in commercial and residential construction. Our surface preparation products ensure optimal installation of virtually any floor covering. The company is a recognized innovator in surface preparation and concrete restoration products.

PSP formulations are continuously optimized and manufactured at our facility. Exacting quality control processes have earned us ISO 9001-2008 and ISO 14001 (environmental standards) certifications.

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