

**VEXCON**  
CHEMICALS, INC.Concrete solutions for architects, engineers and builders since 1974  
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## **POWERCOAT® EPOXY HD WB** “Don’t say Epoxy- say PowerCoat®”

**WATER BASE • HEAVY DUTY • CHEMICAL RESISTANT • BREATHABLE • LOW ODOR**

### **DESCRIPTION**

**POWERCOAT EPOXY HD WB** is our top of the line, water-based, two-component, clear and colored, heavy duty epoxy coating. The product provides a tough and extremely durable coating with excellent adhesion, flexibility, as well as maximum impact, abrasion, and chemical resistance. Independent lab testing shows that the product affords hardness and abrasion resistance comparable to high build systems.

PowerCoat Epoxy WB features PowerCoat Breathable Technology for long-term prevention of blistering and peeling. The PowerCoat system is designed to eliminate the failures adhesion associated with epoxy and polyurethane coatings due to moisture in concrete. PowerCoat breathable technology allows moisture vapor to pass through rather than becoming trapped, preventing blistering, cracking, and peeling. Independent tests verify that PowerCoat has 3.30 perms rating, truly an epoxy that breathes. PowerCoat is guaranteed to reduce moisture vapor emissions (MVER) form as high as 27# per ASTM F-1869 calcium chloride test results to below 3.0#/sq.ft./24hrs.

PowerCoat Epoxy WB and Primer can be applied to fresh concrete for fast track project completion and provides a coating barrier against physical abrasion, corrosion, and commonly encountered acid and alkali chemicals. It also resists solvents such as gasoline, brake fluid, solvents, salts and some alcohols.

### **BENEFITS**

- Available in clear gloss and semi-gloss/matte, 19 standard and custom colors. See Vexcon Color Systems brochure.
- Best chemical resistance including acids, alkalis, solvents and salts
- Vexcon’s breathable technology
- Extremely durable & maximum hardness and adhesion
- Low odor
- Waterproofs and protects
- Cures with minimum shrinkage or loss in film thickness
- Performance warranty
- Apply to fresh concrete for fast track project completion
- Attractive seamless floor

### **RECOMMENDED FOR**

Recommended for commercial, industrial, transportation and other areas that require a durable and chemical resistant coating.

### **SPECIFICATIONS/COMPLIANCE**

- VOC: <200 grams/liter or <1.66 #/gal (Clear & Pigmented)
- Meets
  - US EPA AIM, OTC, LADCO/MRPO, CEPA/EC and CARB- Industrial Maintenance Coatings
- LEED NC category/points: For detailed information visit [vexcon.com/green](http://vexcon.com/green).
  - EQ 4.2 – 1 point
  - MR 5.1/5.2 – 1 point
- USDA requirements for paints and coatings for use in federally inspected meat and poultry plants.
- Chemical resistance, see TN168, available on the web at [vexcon.com/ProductResources/TechnicalNotes](http://vexcon.com/ProductResources/TechnicalNotes).
- CSI 09 96 00- High Performance Coatings

### **APPLICATION**

- Surfaces must be primed with **PowerCoat Primer WB**, and should be allowed to dry for at least 4 hours for existing and 72 hours for new concrete prior to application of PowerCoat Epoxy HD WB.
- Large cracks should be repaired using **PowerCoat Epoxy Flexible Joint Sealant**.
- Prior to use pre-condition material to between 65°F (18°C) and 75°F (24°C).
- The coating is supplied in two parts, A and B, which are mixed together just prior to use.
- Separately mix with a jiffy mixer the individual contents of each until uniform in consistency. When this is done, mix part B into part A, and mix thoroughly until uniform. This product is supplied at the proper consistency and dilution will reduce efficiency.
- **Do Not Induct.**
- The product is supplied at the proper consistency for application and dilution will reduce efficiency.
- Same lot numbers should be used throughout the project. If lot numbers differ, box-mix prior to use. If different lots are used, apply a final thin coat to the entire area.
- Apply by industrial paint sprayer, lambs wool applicator or roller.
- Apply by sprayer which is designed for 2 component epoxy or urethane coatings. See Technical Note TN170 for recommendations, available at [vexcon.com](http://vexcon.com).
- Do not use pump up or light duty sprayer designed for low viscosity coatings.
- For best results use Vexcon’s **EvenFlow Applicator** or ¼” nap solvent resistant mohair roller. Use a roller pan to take off excess product. Do not dip & roll, or pour & spread
- If using a roller, do not overwork the material. Coat in one lapping direction only; overworked material can affect film properties.
- The mixed material has a pot life of approximately 4 to 6 hours.
- **Two coats are required, second coat can be applied after the first coat has thoroughly dried. The dry time is dependent on temperature, air flow, film thickness, and concrete conditions, not a specific number of hours. Do not put on a second coat if the first coat is not dry.**
- To protect your PowerCoat floor from ongoing construction dust, dirt, and debris, use **Certi-Vex® Talc Release** until construction is completed.
- Clean application equipment daily with **Certi-Vex Equipment Cleaner**.
- To improve non-slip profile, use **Certi-Vex Grip** or **Certi-Vex Non-Slip Additive**.
- For a unique and custom floor, use **Certi-Vex Deco Chips**.

### **DRY TIME**

- The relative humidity, surface and air temperature will affect dry times.
  - High humidity will extend dry times and require positive air flow for adequate drying. This is accomplished with the use of fans, open windows, or doors to properly circulate the air.
  - Low temperatures will also extend dry times.
  - NOTE: Surface temperatures can vary from ambient. Do not apply if surface temperatures are below 60°F or above 85°F.
  - Material must be within temperature ranges prior to application.
  - Do not apply second coat until the first coat is dry. Test for dryness by pressing tape hard onto the surface. Leave for 5 minutes, remove. If tape is clean, the surface is dry.
- |                                 |                   |
|---------------------------------|-------------------|
| • Tack Free                     | Less than 6 hours |
| • Curing time - Foot traffic    | 24 hours          |
| • Curing time - Vehicle traffic | One week          |

## COVERAGE RATES/ESTIMATING

Apply PowerCoat Primer WB at 200-300 sq ft/gal. **Note:** After application, surface must have an even sheen. If sheen is uneven or patchy, apply a second coat of Primer at 300 sq ft/gal. Estimate PowerCoat Epoxy HD WB at 150-250 sq.ft./gal. (3.8-6.3 m<sup>2</sup>/L) depending on desired film thickness and porosity of concrete. Actual application is in two thin coats, not one thick coat. Calculated final dry film thickness is based on two coats.

### • PowerCoat Primer WB

25% solids	First Coat	Second Coat (If needed)	Final Coverage Dry Film Thickness
Porous	200 sqft/gal 8 mils WFT	300 sqft/gal 5.3 mils WFT	125 sqft/gal 3.2 mils / 81µm DFT
Hard, Non-porous	300 sqft/gal 5.3 mils WFT	400 sqft/gal 4 mils WFT	175 sqft/gal 2.3 mils / 58µm DFT

### • PowerCoat Epoxy HD WB

61% solids vol.	First Coat	Second Coat	Final Coverage Dry Film Thickness
Porous	300 sqft/gal 5.3 mils WFT	300 sqft/gal 5.3 mils WFT	150 sqft/gal 6.4 mils / 162 µm DFT
Hard, Non-porous	400 sqft/gal 4 mils WFT	400 sqft/gal 4 mils WFT	200 sqft/gal 4.8 mils / 123 µm DFT
Hard, Non-porous	500 sqft/gal 3.2 mils WFT	500 sqft/gal 3.2 mils WFT	250 sqft/gal 3.9 mils / 99 µm DFT

## SPECIAL NOTES

- PowerCoat Epoxy HD WB has splash and immersion resistance to many chemicals and can be used in areas where splashed materials will be removed in reasonable times, usually 4-24 hours. For immersion test information, see TN168. If chemical is not on list, do not use in constant immersion applications without contacting Vexcon.
- Do not apply below 60°F (15°C) or above 85°F (29°C). When temperatures are outside this range review Vexcon's Hot and Cold Weather Application Guides, available at vexcon.com.
- Do not apply more than one coat without proper surface preparation including surface abrasion after full cure.
- Do not use spiked shoes during application.
- A second coat can be applied after 6 hours and within 48 hours without abrading the surface.
- Maintenance-clean regularly with **StarSeal® EF Degreaser & Cleaner**.
- For use by experienced contractors only.
- A semi-gloss/matte finish will develop in 7 days if using clear semi-gloss matte PowerCoat HD WB.
- Shelf Life: If properly stored in its original sealed containers, one year from date of manufacture. Rotate your stock.
- Storage/ Handling: Store in tightly sealed original factory container. Keep from freezing and exposure to moisture. Store at room temperature prior to use. Care should be taken to keep dirt, water and contaminants away from the opening of containers.
- Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- Proper application of Vexcon material is the responsibility of the installer or user. Telephone consultation and/or field visits by Vexcon personnel are for the sole purpose of making technical recommendations only and not for providing quality control or supervision on location.

## HEALTH AND SAFETY

Vexcon MSDS #CPI10 is an integral part of the safety and application of our product. A short synopsis is provided in this product data sheet. Before using this Vexcon product obtain a copy of the MSDS from your distributor or visit vexcon.com.

## PHYSICAL PROPERTIES

- Solids 60% by volume – Clear
- Solids 62% by volume - Pigmented

### WARRANTY

LIMITED WARRANTY: Vexcon warrants for a period of one (1) year from the date of manufacture that the goods supplied hereunder shall be of its standard quality and free of defects, and conforms to (a) Vexcon's published specifications in force on the date of acceptance by Vexcon of the order and (b) the sample which has been made available for testing by buyer prior to sale. Any claim under this warranty must be made in writing to Vexcon Chemicals within sixty (60) days after such non-conformity is first discovered. As the EXCLUSIVE REMEDY for any breach of this Limited Warranty, Vexcon at its option shall replace nonconforming goods or refund the purchase price. Since methods of use and application are beyond Vexcon's control, this Limited Warranty IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS LIMITED WARRANTY IS ALSO IN LIEU OF ANY OTHER POSSIBLE LIABILITIES OF VEXCON, WHETHER ALLEGED TO ARISE BY AGREEMENT OR BY OPERATION OF LAW, RESPECTING THE SALE, APPLICATION, USE OR FUNCTION OF VEXCON'S PRODUCTS, INCLUDING BUT NOT LIMITED TO CLAIMS OF NEGLIGENCE, GROSS NEGLIGENCE, MISUSE, STORAGE DAMAGE, MISAPPLICATION, ACCIDENT, STRICT LIABILITY OR ANY OTHER TORT. No person is authorized by Vexcon to assume for it any other liability of any kind in connection with the sale or use of products manufactured and sold by it, and there are no oral agreements or warranties collateral to or affecting any sale or use. All of the foregoing arises under the substantive law of Pennsylvania without regard to principles of conflicts of laws.

LIMITATION OF LIABILITY: IN ALL EVENTS VEXCON'S LIABILITY SHALL BE LIMITED TO THE PURCHASE PRICE OF PURCHASED PRODUCTS. IN NO EVENT SHALL VEXCON BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGE, REAL OR PERSONAL, ATTRIBUTED TO ITS PRODUCTS, NOR FOR ANY EXCAVATION, REMOVAL, REAPPLICATION, DOWNTIME, CLEANUP, LOSS OF USE, LOSS OF OPPORTUNITY, LOSS OF MARKET VALUE, LOSS OF RENTAL VALUE OR FOR ANY LOSS OF PROFITS OR OTHER SPECIAL, INCIDENTAL, RESULTING, CONSEQUENTIAL OR EXEMPLARY DAMAGES.

## PACKAGING

Epoxy HD WB Clear	PKG WT	PKG VOL	WEIGHT %	VOLUME %
Part A Clear	15.16 lbs	1.8 gal	43%	45%
Part B Resin	20.10 lbs	2.2 gal	57%	55%
Totals	35.26 lbs	4.0 gal	100%	100%

Epoxy HD WB Pigmented	PKG WT	PKG VOL	WEIGHT %	VOLUME %
Part A Color	21.19 lbs	2.2 gal	57%	55%
Part B Resin	15.98 lbs	1.8 gal	43%	45%
Totals	37.17 lbs	4.0 gal	100%	100%

**YIELD:** 4 gallons of finished coating. When using other containers to measure smaller volumes, the above ratios must be used.

## INDEPENDENT TEST REPORT SUMMARY

Test Method	Characteristic	Results	Lab Report
ASTM B117	Salt Spray Resistance 100 hrs	Overall: 10 Scribed: 10	DL-10760
ASTM D1308*	Chemical Resistance 30-day immersion	See Chemical Resistance Chart TN168	DL Labs
ASTM D1640	Drying Time	Set to touch: 1 hr Tack free: 2 hrs Dry hard: 4 hrs Dry through: 4 hrs	DL-10760
ASTM D1653	Breathability Permeability	3.30 perms (English units) 2.17 metric perms	DL-11884
ASTM D2047	Slip Resistance	Coefficient of Friction PC Epoxy .70 PC Epoxy NonSlip 1.20	Case Consulting Laboratories
ANSI B101.1	Slip Resistance	Static Coefficient of Friction PowerCoat Epoxy (wet) - 0.81	Nu-Safe
ANSI B101.3	Slip Resistance	Dynamic Coefficient of Friction PowerCoat Epoxy (wet) - 0.43	Nu-Safe
ASTM D2240	Hardness, Durometer Shore A	95-96°	DL Labs
ASTM D2240	Hardness, Durometer Shore D	84-87°	DL Labs
ASTM D3363	Hardness, Pencil	3H	DL-10760
ASTM D4060	Abrasion Resistance (Taber Abraser)	CS-17 wheel/1000g/1000 revs 0.22g or 0.8% loss per 1000 revs. Wear cycles per mil = 885 cycles 1.13 mils / 1000 revs.	DL-11146
ASTM D4541	Adhesion (Pull-off)	Primed 395 psi Unprimed 350 psi	DL-10760
ASTM D522	Flexibility, Method B, 1/8" Mandrel	No cracking or loss of bond	DL-11372
ASTM D523	Gloss 60°	90 units	DL-10760
ASTM D968	Abrasion Resistance (Falling Sand)	>30L/mil	DL-11372
ASTM E84	Fire Rating	Flame Spread Index: Class A	HPVA T1054E
ASTM F1869 (formerly E1907)	Breathability Moisture Vapor Emission	3.0#/1000sqft/24hrs vs. 27#/1000sqft/24hrs uncoated	BEE Labs
ASTM G53	Accelerated Weathering 200 hrs	No blistering: 10 No chalking: 10	DL-10760
Fed Spec TTC-535-B Sec 3.4.10	Steam Resistance; 6 hrs exposure 24 hrs recovery, 6 hrs additional exposure	Blistering :10; Peeling: 10 Delamination: 10; Softening: 10 Adhesion Loss: 10 Discoloration: 200% better than control	DL-10760

Note: ASTM Standard Scoring System: 10 = No Effect, or Perfect Performance

## CONTACT US @

Additional product information, technical assistance and customer services are available by contacting Vexcon Chemicals directly or our distributors.

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