



VEXCON
CHEMICALS, INC.

Protecting and improving concrete since 1974

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POWERCOAT® EPOXY HD *“Don't say Epoxy- say PowerCoat”®*

HEAVY DUTY • CHEMICAL RESISTANT • DURABLE

VOC Content (Clear) 413 grams/liter or 3.45 #/gal - Industrial Maintenance Coating

VOC Content (Pigmented) 334 grams/liter or 2.8 #/gal - Industrial Maintenance Coating

DESCRIPTION

POWERCOAT® EPOXY HD our top of the line two component clear and colored heavy duty epoxy coating. The product provides a tough and extremely durable coating with excellent adhesion and flexibility, as well as maximum impact abrasion, and chemical resistance. Independent lab testing has shown that the product affords hardness and abrasion resistance comparable to typical 16-50 mil systems.

The Powercoat system is designed to eliminate the failures of 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 27.0# Calcium Chloride test to below 3.0#/1000 sq.ft./24hrs. It allows for easy and economical curing and reduces hydrolysis and alkali attack. Powercoat Epoxy 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. The system is ideal for use in commercial, food handling, industrial, or transportation services and many other applications.

SPECIAL NOTES

- Powercoat Epoxy 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 other side.
- Do not apply below 60° F (15° C) or above 85° F.(29° C).
- 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 **Certi-Vex Super Degreaser & Cleaner**.
- For use by experienced applicators.
- Store at room temperature.
- A semi-gloss/matte finish will develop in 7 days if using clear semi-gloss matte Powercoat HD.
- Shelf Life: If properly stored in its original sealed container, one year from date of manufacture. Rotate stock.

APPLICATION

- Surfaces must be primed with **Powercoat Primer**, 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.
- Large cracks, repair using **Powercoat Epoxy Joint Sealant**.
- 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.
- After thoroughly mixing, allow the mixed product to stand undisturbed for a 30-minute induction period before applying. Low temperatures require longer induction, temperature above 80°F., less induction.
- 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 two different lots are used, apply a final thin coat to the entire area.
- Apply by industrial paint sprayer, lambs wool applicator or roller. If applying by roller for best results use Vexcon's **EvenFlow Applicator** or ¼" nap mohair solvent roller.
- Use a roller pan to take off excess product. Do not dip and roll or pour and spread
- If using a roller do not overwork the material. Coat in one lapping direction only, overworked material can affect the 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 Epoxy Non-Slip Additive**.
- For a unique and custom floor use **Certi-Vex Deco Chips**.

BENEFITS

- Available in clear gloss and semi-gloss/matte, 19 standard and custom colors. See Vexcon Color Systems Chart
- Interior/exterior application
- Vexcon's breathable technology
- Cures with minimum shrinkage or loss in film thickness
- Performance warranty
- Best chemical resistance including common acids, alkalis, solvents and salts
- Waterproof
- Maximum hardness and adhesion
- Apply to new concrete for fast track project completion

COVERAGE RATES

Apply Powercoat Epoxy HD at 150-250 sq. ft./gal (3.8-6.3 m²/L) depending on desired film thickness and porosity of concrete. Calculated dry film thickness is based on one coat.

POWERCOAT PRIMER

200 sq.ft. /gal (5.0 m ² /L)	2 mils (5 µm)
250 sq.ft. /gal (6.3 m ² /L)	1.5 mils (4 µm)
300 sq.ft. /gal (7.5 m ² /L)	1.3 mils (3 µm)

POWERCOAT EPOXY HD

150 sq.ft. /gal (3.8 m ² /L)	6.5 mils (16 µm)
200 sq.ft. /gal (5.0 m ² /L)	5 mils (13 µm)
250 sq.ft. /gal (6.3 m ² /L)	4 mils (10µm)

BREATHABILITY TESTING

PERMEABILITY: ASTM D1653 3.30 perms DL LABS # 11884-B, ASTM E 1907 3.0#/1000 sq.ft./24 hrs. vs uncoated of 27#/1000 sq.ft./24 hrs.

DURABILITY & WEARABILITY TESTING

Independent lab testing has confirmed that Vexcon Powercoat System provides outstanding physical strength characteristics. The systems hardness and durability far exceeds the standard levels for the product mil levels.

Hardness, Shore A	95-96
Hardness, Shore D	84-87
Pencil hardness:	3H

Taber Abrasion

CS17 wheels	
1000gr/1000 cycles	.22 grms 0.8 % loss per 1000 rev.
Wear Cycle per mil	885 or 1.13 mil/1000 rev.

All testing based upon two coats at 200 sq.ft. /gallon.
Coating has cured 7 days.

TEST REPORT SUMMARY D/L LAB # 10760

Product: Vexcon PowerCoat	Lab: 87A14
Coverage Rate: 150 sq.ft/gal	
Set to Touch: 1 Hour (unprimed)	
Tack Free: 2 Hours (unprimed)	
Dry Hard: 4 Hours (unprimed)	Dry Thru: 4 Hours (unprimed)
ASTM D 523 Gloss: 90	
Adhesion: ASTM D4541	
Primed with Vexcon PowerCoat Primer @ 200 sq.ft/gal	
Primed: 395	Unprimed: 350
All cohesive/substrate failures:	
Salt Spray: Rating 0=Poor 10=Excellent No effect	
ASTM B117--Scribed	10
ASTM D714--Unscribed	10
STEAM RESISTANCE FEDERAL SPEC. TT C 535 B	
Section 3.4.10	Steam @ 207° F
6 hours: Rating 0=Poor 10=Excellent, no effect	
Primed: 10	Unprimed: 10
Scribed no blistering, discoloration, loss of hardness or film properties	
Adhesion scribed/primed	
Before: 395	After: 350
Gloss Before:	After Steam Test:
Primed: 85	Primed: 84
Unprimed: 90	Unprimed: 90
UV Weathering 200 Hrs. ASTM G53 Unprimed	
Rating: 0=Poor 10=Excellent, no effect	
No chalking	10
Film Characteristics:	No delamination or deleterious effects
Discoloration:	200% better than control

SPECIFICATIONS/COMPLIANCE

- Meets USEPA AIM and OTC VOC regulations
- USDA requirements for paints and coatings for use in federally inspected meat and poultry plants
- ASTM-E84 Class A fire rating
- ADA and ASTM 2047 non-slip requirements

PHYSICAL PROPERTIES

- Dry-tack free Less than 6 hours
- Curing time - Foot traffic 24 hours
- Curing time - Vehicle traffic One week
- Solids 61% by volume, 72% by weight

Note: Dry and curing time depends on air temperature and film thickness. All calculations based upon 68-77 ° F (20-25°C). Low temperatures and relative humidity will extend dry time.

Do not apply second coat until the first coat is dry.

IMMERSION TESTING

Powercoat can be immersed in the following chemicals. Recommended coverage rates must be followed and no pinholes or voids in the coating. Two coats Powercoat @ 150 sq. ft/gallon are recommended. Do not use in constant immersion applications without consulting with Vexcon Chemicals first if chemical is not on list.

CHEMICAL

98% Sulfuric Acid	30 DAY RATING Discoloration No blister or film degradation
25% Caustic (NaOH)	No effect
25% Sodium Chloride	No effect
Xylene	No effect, loss of gloss no Blisters or peeling
Anti Freeze Ethelene Glycol	No effect
Gasohol	No effect
15% Muriatic Acid	No effect
Water	No effect
Skydrol 500B-4	No effect
Brake Fluid	Loss of gloss
Acetone	Loss of gloss

For other chemical resistance, contact Vexcon Chemicals.

PACKAGING

COLOR:

PART A: Color: 1.8 gl. by volume in a 5 gallon pail; by wt. 50%.
PART B: Base: 2.2 gl. by volume in a 3 gallon pail; by wt. 50%.
YIELD: 4 gallons of finished coating.

CLEAR

PART A: Clear: 1.6 gl. by volume in a 5 gallon pail; by wt. 37%.
PART B: Base: 2.4 gl. by volume in a 3 gallon pail; by wt. 63%.
YIELD: 4 gallons of finished coating.

When using other containers to measure smaller volumes, the above ratios must be used.

HEALTH AND SAFETY

Vexcon MSDS #CP103 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 by contacting Vexcon Chemicals.

CONTACT US@

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

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