



VEXCON
CHEMICALS, INC.

Concrete solutions for architects, engineers and builders since 1974
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POWERCOAT® UV+ HD

FAST DRY • URETHANE • BREATHABLE • HEAVY DUTY

DESCRIPTION

POWERCOAT UV+ HD combines the abrasion and UV resistance of a urethane coating with Vexcon's PowerCoat breathable technology. This heavy duty high performance coating is ideal for high use areas requiring UV protection, long term durability and fast drying. PowerCoat UV+ HD 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, and alcohols.

PowerCoat breathable technology allows moisture vapor to pass through rather than becoming trapped; this prevents blistering and peeling of the coating. Independent tests verify that PowerCoat has a 3.30 perms rating, truly a urethane that breathes.

BENEFITS

- Best gloss and color retention
- Waterproofs and protects
- Retains over 99% of its gloss after 1500 hrs of UV testing
- Best abrasion resistance
- Aesthetically pleasing
- Better chemical resistance
- Eliminates adhesion failures normally encountered with polyurethane coatings on concrete
- Apply to fresh concrete for fast track project completion
- Available in clear gloss and semi-gloss/matte, 19 standard and custom colors. See Vexcon Color Systems chart.

RECOMMENDED FOR

Residential, commercial, industrial, distribution and transportation structures subject to moderate to heavy use where a hard, durable, chemical, abrasion and UV resistant coating is required.

SHORT SPECIFICATION

09 96 00: Basis of design, low VOC, breathable, two-component urethane coating with minimum solids of 70%. Retains 1500 hour ASTM D523 gloss and ASTM D1209 clarity as manufactured by Vexcon Chemicals.

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 50°F (10°C) or above 85°F (20°C).
- Material must be within specified temperature ranges before application.
- **Do not apply second coat until the first coat is dry.** You can test for dryness by pressing tape hard onto the surface. Leave for 5 minutes, and then 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

APPLICATION

- Repair large cracks using **PowerCoat Epoxy Flexible Joint Sealant**.
- Prior to use pre-condition material to between 65°F (18°C) and 75°F (24°C).
- When used on bare concrete PowerCoat Primer must be applied following the directions in product data sheet CP101. The primer must be allowed to dry for at least 4 hours prior to application of PowerCoat UV+ HD.
- 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 part until uniform in consistency. When this is done, mix part B into part A. Mix until uniform. The product is supplied at the proper consistency 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.
- Apply by sprayer which is designed for 2 component epoxy or urethane coatings. See Technical Note TN170, available at 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 1/4" 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 3 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 apply a second coat if the first coat is not dry.**
- Clean application equipment daily with **Certi-Vex® Equipment Cleaner**.

SPECIFICATIONS/COMPLIANCE

- VOC – <340 grams/liter or 2.84#/gal (Clear)
- VOC – <340 grams/liter or 2.84#/gal (Pigmented)
- Meets:
 - US EPA AIM, OTC, LADCO/MRPO and CEPA/EC - Industrial Maintenance Coatings
- USDA requirements for paints and coatings for use in federally inspected meat and poultry plants.
- Solids % by wt. Clear 70%, Clear Matte 72%, and Color 70%
- CSI 09 96 00 - High Performance Coatings

INDEPENDENT TEST REPORTS SUMMARY

| Test Method | Characteristics | Results | |
|--|---|--|--------------------------|
| | | ASTM D-523 | Gloss Testing-1500 hours |
| | | Final Gloss | 103 units (60°) |
| ASTM D-1209 | APHA Color | Initial | <5 |
| | | Final | <50 |
| ASTM D-1308 | Chemical Resistance 30 day immersion | See Technical Note TN168, available at vexcon.com | |
| ASTM D-1653 | Breathability permeability | 3.30 perms (English units) 2.17 metric perms | |
| ASTM D-2243 | Freeze Thaw Resistance (100 freeze/thaw cycles) | Cracking | None |
| | | Adhesion Loss (intercoat) | None |
| | | Adhesion Loss (to substrate) | None |
| ASTM D-4060 | Abrasion Resistance (Taber Abrasser) | CS-17 wheel/1000g/1000revs/ 0.22g or 0.8% loss per 100 revs. Wear Cycles per mil – 885 cycles 1.13 mils/1000 revs | |
| ASTM G-53 – G-154 | Accelerated Weathering (200 hrs) | No blistering: 10 | |
| | | No chalking: 10 | |
| Note: ASTM Standard Scoring System: 10= No Effect or Perfect Performance | | | |

COVERAGE RATES/ESTIMATING

Apply at 150-250 sq. ft. /gal (2.5-3.8 m²/L) depending on desired film thickness. Calculated final dry film thickness is based on two coats.

• PowerCoat Primer

Note: After application surface must have an even sheen.

| | First Coat | Second Coat | 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 UV+ HD

| | 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 5.9 mils / 149µm DFT |
| Hard, Non-porous | 400 sqft/gal 4 mils WFT | 400 sqft/gal 4 mils WFT | 200 sqft/gal 4.4 mils / 111 µm DFT |
| Hard, Non-porous | 500 sqft/gal 3.2 mils WFT | 500 sqft/gal 3.2 mils WFT | 250 sqft/gal 3.5 mils / 89 µm DFT |

MAINTENANCE

Spills should be removed promptly and cleaned. Sealed areas should be cleaned regularly, use **StarSeal EF® Degreaser & Cleaner** for all cleaning requirements.

HEALTH AND SAFETY

Vexcon SDS CP108 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, it is advisable to obtain a copy of the SDS from your distributor or visit vexcon.com.

SPECIAL NOTES

- **Warning:** Do not re-use Part B once opened. Properly sealed, Part A can be reused. See Technical Note TN225.
- **Caution:** Strong odor. Not recommended for confined, occupied or areas without adequate ventilation.
- No induction required; use immediately after proper mixing.
- PowerCoat UV+ HD 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. Do not use in constant immersion applications without contacting Vexcon Chemicals.
- A second coat can be applied after 6 hours and within 48 hours without abrading the surface.
- Do not apply more than one coat without proper surface preparation including surface abrasion after full cure.
- For use by experienced contractors.
- Shelf Life: If properly stored in its original sealed container, one year. Rotate your stock.
- Do not use materials beyond manufacturer's shelf life.
- Follow manufacturer's written dry time instructions.
- Do not apply coating when surface temperatures are below 50°F/10°C.
- Do not apply coating when surface temperatures are above 85°F/29°C.
- Do not apply coating on windy days.
- Mechanically mix well before use (jiffy- or squirrel-type mixer). Shaking is not sufficient.
- Avoid coating when adverse weather conditions are expected within 12 to 24 hours of application.
- Do not apply to frozen, frosted, or snowy surfaces.
- 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.

PACKAGING

| Mixing Ratios | Part A | Part B | Totals |
|-----------------|--------|--------|---------|
| Clear - Pounds | 23.56 | 10.07 | 33.63 |
| Clear - % by Wt | 70% | 30% | 100.00% |
| Clear - Gallons | 2.90 | 1.1 | 4.00 |
| Matte - Pounds | 25.94 | 11.12 | 37.06 |
| Matte - % by Wt | 70% | 30% | 100.00% |
| Matte - Gallons | 2.80 | 1.20 | 4.00 |
| Color - Pounds | 28.39 | 6.57 | 34.96 |
| Color - % by Wt | 81.21% | 18.79% | 100.00% |
| Color - Gallons | 3.17 | 0.83 | 4.00 |

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

CONTACT US@

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

- vexcon.com
- techservice@vexcon.com
- customerservice@vexcon.com
- sales@vexcon.com
- Voice: 888.839.2661
- Fax: 215.332.9997

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.

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