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888-839-2661 | sales@vexcon.com | 7240 State Road | Philadelphia, PA 19135 vexcon.com

POWERCOAT® UV+ HD

FAST DRY • URETHANE • BREATHABLE • HEAVY DUTY

DESCRIPTION

POWERCOAT UV+ HD combines the abrasion and UV light 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 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.

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
- Can be applied to fresh/green or damp concrete for quick return to service when used with Vexcon's **PowerCoat Primer**, a ready to use cure and prime product
- 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.

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 lint-free 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 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**.

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.

PHYSICAL PROPERTIES

- Dry-tack time Less than 6 hours
- Curing time 24 hours
- Full curing One week
- Solids % by wt. Clear 70%, Clear Matte 72%, and Color 70%

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.

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.

PRIMER	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

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

SPECIFICATIONS/COMPLIANCE

- VOC – <340 grams/liter or 2.84#/gal (Clear)
- VOC – <340 grams/liter or 2.84#/gal (Pigmented)
- Meets:
 - US EPA AIM - Industrial Maintenance Coatings
 - OTC - Industrial Maintenance Coatings
 - LADCO/ MRPO - Industrial Maintenance Coatings
 - Canada - Industrial Maintenance Coatings
- Accelerated Weathering ASTM G53/G154
ASTM D523 Gloss Testing - 1500 Hours
Initial Gloss 103 units (60°)
Final Gloss 103 units (60°)
- ASTM D1209 APHA Color
Initial <5
Final <50
- 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
- USDA requirements for paints and coatings for use in federally inspected meat and poultry plants.
- Freeze Thaw Resistance after 100 freeze-thaw cycles
Cracking none
Adhesion loss (intercoat) none
Adhesion loss (to substrate) none
- CSI 09 96 00 - High Performance Coatings

HEALTH AND SAFETY

Vexcon MSDS 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 MSDS CP108 from your distributor or by contacting Vexcon Chemicals.

SPECIAL NOTES

- **Warning:** Do not re-use Part B once opened. Properly sealed, Part A can be reused. See Technical Note #TN-225.
- **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 consulting with Vexcon Chemicals first.
- 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.
- 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.
- Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- Storage: Store materials in clean, dry area. Keep containers sealed until ready for use.
- Handling: Protect materials during handling and application to prevent damage or contamination.
- Do not use materials beyond manufacturer's shelf life.
- 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.
- Prior to use contact Vexcon Chemicals for full warranty information.

PACKAGING

Mixing Ratios	Part A	Part B	Totals
Clear - Pounds	23.56	10.07	30.81
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