



VEXCON
CHEMICALS, INC.

Concrete solutions for architects, engineers and builders since 1974
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STARSEAL® EZ LIFT

TILT UP • PRECAST

DESCRIPTION

STARSEAL EZ LIFT is an efficient, fast track non-membrane forming; reactive water base bond breaker specifically formulated for tilt up, and pre-cast concrete construction.

This quick drying material is chemically engineered to provide superior performance for easy lifting of tilt wall panels from properly designed, finished and cured concrete casting beds.

BENEFITS

- Excellent chemical positive release for exceptional wall panel appearance
- Excellent performance on most types of concrete finishes
- Fugitive dye added for ease of application
- Fast drying for optimum concrete pour scheduling
- Low VOC

VEXCON TILT UP ADVANTAGE

- Concerns regarding mix design, surface finishing, coverage rates and “osmotic effect” are greatly reduced with the Vexcon tilt up system
- Unlike other bond breakers, Vexcon paints and coatings can be applied immediately to the casting bed and after three days to the wall panels
- Cracking, carbonization, curling, and cracking are significantly reduced
- Enhance, protect and beautify finished wall panels with Vexcon’s designer color palette of compatible protective coatings and treatments
- Long shelf life

APPLICATION NOTES

- Prior to application, read, and follow all current (verify literature is most up to date) application instructions, special notes, and precautions in this data sheet, on the MSDS, and on the label of the container prior to use.
- It is the contractor’s responsibility to evaluate the site conditions, application and coverage rates of each project.
- Test applications should always be made by the end user/purchaser prior to overall use of the bond breaker.
- Equipment: Apply using a low-pressure pump-up type sprayer. The sprayer must be clean. If cleaning is required, use **Certi-Vex® Equipment Cleaner** flush with water. The tip size must be able to produce a well atomized spray pattern. The sprayer must be kept under sufficient pressure to correctly atomize without streaming, tailing, or spitting. A 1/2 (0.5) gal. /minute fan tip is generally recommended for most applications. For larger jobs we recommend MBW Concrete Sprayer, Model # BMS 75, see TN 170 for more information.
- Thoroughly agitate before each use.
- Do not dilute.

SHORT SPECIFICATION

03 47 00: Basis of design: VOC compliant non-membrane forming, reactive bond breaker system meeting ASTM C-309 when applied over Certi-Vex Envio Cure 100 or StarSeal 309, compatible with Vexcon wall panel paint/coating materials as manufactured by Vexcon Chemicals.

CASTING SLAB PREPARATION AND FINISHING

- Casting slab concrete should have a hard trowel finish. If a broom or a porous/float concrete finish is used, additional bond breaker coat may be required for optimum release performance.
- Prior to the application of StarSeal EZ Lift the slab must be properly cured in compliance with ACI 308 & ASTM C-309 for proper curing of new concrete. Depending on concrete slab finishing, typically on hard troweled concrete use **Certi-Vex Envio Cure 100** dissipating curing compound, for all other finishes, use **StarSeal 309**. Follow specific instructions contained in product data sheet for new concrete. Allow product to dry prior to applying bond breaker.

BOND BREAKER APPLICATION TO CASTING SLAB

- The concrete must be properly cured with StarSeal 309 or Certi-Vex Envio Cure 100.
- The sealed concrete should be completely cleaned of dust, dirt, contaminants and foreign objects prior to applying bond breaker.
- The first coat should be applied at a rate of 400 sq. ft. / gal. with a roller or sprayer and allowed to dry tack free.
- After the first coat is dry, a second coat should be applied in the same manner, at a rate of 600 sq. ft. / gal. perpendicular or 90° to the application direction of the first coat.
- The film should have a slightly darkened continuous and uniform soap like feel.
- The typical effective coverage rate after curing for all combined bond breaker coats is 240 sq.ft./gal.
- If casting of concrete panels is delayed for more than 2 weeks after the final bond breaker application it will be necessary to check for a sufficient bond breaker film on the casting slab. A slightly slippery soapy feel must be present and water beads up on the surface. If the bond breaker film is insufficient, the bond breaker must be reapplied as necessary before concrete placement.

DRY TIMES/WEATHER AND CLIMATE CONDITIONS

- Drying time for the first coat is 60 minutes at 70°F (21° C), with dry time for the second coat approximately 40 minutes at 70° F.
- Relative humidity, surface and air temperature will affect dry time. High humidity and lower temperatures will extend dry times. Low humidity and high temperatures will reduce dry times.
- Surface temperatures can vary significantly from ambient. Do not apply if surface temperatures are below 40°F (4° C) or above 85°F (29°C). For temperatures below or above these ranges contact Vexcon prior to application.
- Do not apply in cases of high wind, rain or if rain is forecast within 12 hours of the application. If this occurs additional coats may be necessary.

SPECIFICATIONS/COMPLIANCE

- VOC: <300 gr/liter or <2.51 #/gallon
- Meets:
 - USEPA AIM - Bond Breakers
 - OTC/LADCO/MRPO - Bond Breakers
 - CEPA/EC - Bond Breakers
 - CARB & SCAQMD Rule 1113 - Bond Breakers
- CSI reference 03 47 13 – Tilt-Up Concrete

CASTING SLAB TESTING

- Prior to placing concrete StarSeal EZ Lift must be checked by the application of water droplets to several well representative areas on the casting slab surface.
- If water beads, similar to how a newly waxed car would look, and does not penetrate or soak into the concrete surface and the casting slab has a uniform appearance, the application is sufficient to proceed with concrete placement.
- If water soaks into the casting slab surface or a noticeable light color change is apparent additional material should be applied to the light areas prior to placing of concrete.

CLEANING PROCEDURES/CASTING SLAB

- The casting slab must be properly cleaned prior to applying any coating or densifier. Typical cleaning requires the use of **Certi-Vex HD Floor Cleaner** (See specific VEXCON product data sheet for proper cleaning instructions). Use with a Ride-On or Walk Behind scrubber equipped with Nylogrit brushes, black stripping pads or grit impregnated pads.
- Over application may require additional cleanings or the use of stripping material such as **Certi-Vex Concrete Stripper**.
- When the concrete is clean, dry, and water absorbent, the concrete is ready for application of coating or hardening.

PAINT/COATING TILT PANELS

- Vexcon manufacturers a complete product line of compatible architectural finishes available in many formulations, finishes and textures. For more information on these as well as other Tilt-Up products, see Vexcon's Vertical Surfaces and Tilt-Up sales brochures.
- After proper cleaning, Vexcon coatings can be applied immediately to the wall panels. (See specific Vexcon product data sheet for proper surface preparation instructions.)
- Walls should be cleaned by power washing to remove all dirt, contaminants and any excess bond breaker residue. Power washing with a minimum of 3500 psi with an oscillating tip.
- To repair surface imperfections such as bug holes and cracks, use **Certi-Vex Patch FP** or **Certi-Vex Patch RTU**.
- To repair construction damage use **Certi-Vex Patch FS**.

COATING or HARDENING CASTING SLAB

- Vexcon manufacturers a complete product line of compatible floor treatments including high performance coatings, floor hardeners, polished concrete and cure and seals. For more information, see Vexcon's Tilt-Up sales brochure.
- Apply **PowerCoat® Epoxy Flexible Joint Sealant** to control joints.

DENSIFYING/HARDENING CASTING SLAB

- Floor slabs to be densified/hardened with **StarSeal PS** after wall panel erection, follow instructions per product data sheet(s).
- Floors to be treated with StarSeal PS as part of new slab placement; after finishing and saw cuts are completed, apply StarSeal PS per the product data sheet(s). Once the slab has no standing water or StarSeal PS left on the surface apply either Envio Cure 100 or StarSeal 309 depending on concrete finish as stated above.

PACKAGING

StarSeal EZ Lift is packaged in 5-gallon pails and 55-gallon drums. Contact Vexcon to discuss your customized packaging requirements.

PHYSICAL PROPERTIES

- Appearance (wet) Milky White
- Appearance (dry) Clear

SPECIAL NOTES

- Verify all product data and MSDS are current.
- StarSeal EZ Lift alone does not meet the curing requirements of ASTM C-309.
- Concrete must be properly cured with a Vexcon curing product for optimum performance and compliance with ACI 308 & ASTM C-309 specifications.
- Concrete that has not been properly finished and/or not properly cured may not have proper surface properties, limiting the performance of StarSeal EZ Lift.
- Proper application of a cure prior to the application of StarSeal EZ Lift is important to eliminate absorption of the bond breaker by the casting slab.
- Broom or a porous/float concrete finish may require a light third coat for optimum release performance. See Casting Slab Test section.
- StarSeal EZ Lift may be subject to removal from rain or water due to application over a curing membrane.
- After proper cleaning, residual StarSeal EZ Lift, when properly applied on the casting slab, will not prevent the bonding of tile or carpet adhesives to the concrete slab.
- The concrete casting slab and tilt wall panels must be properly designed, finished and cured in accordance with industry standards and guidelines including those of ASTM and ACI
- Not recommended for application without proper spray equipment.
- Over application may result in material residue on panels and floor.
- The instructions provided apply to general site conditions such as concrete mix designs, finishing techniques, and site ambient conditions. Test applications should always be made by the end user/ purchaser prior to overall use of the bond breaker.
- Improper concrete mix designs, overly porous or weak casting or waste slab concrete, failure to properly finish and/or cure the concrete and/or uneven or improper application and insufficient mixing of the bond breaker can lead to panel sticking.
- 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.
- Shelf Life: If properly stored and handled in its original sealed container, one (1) year from date of manufacture.
- 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.
- Warranty: All products are sold subject to Vexcon's published materials Limited Warranty and Terms and Conditions of Sale and can be changed without notice. You may view our Warranty's and Terms and Conditions of Sale at vexcon.com.
- Use of this product is limited to contractors with prior tilt-up experience.

HEALTH AND SAFETY

- Use only with adequate ventilation.
- If swallowed, do not induce vomiting.
- Use of gloves, goggles and other protective clothing is advised when using this product.

Vexcon MSDS 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 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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