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STARSEAL[®] CLEAN LIFT

TILT UP • LIFT SLAB • PRECAST • ASTM C-309

DESCRIPTION

STARSEAL CLEAN LIFT is an efficient, fast track membrane forming, reactive bond breaker. This product is specifically formulated as a water base low VOC product for tilt-up lift slab and pre-cast concrete construction.

StarSeal Clean Lift features a propriety formulation of chemically active release agents, which form micro layers on the concrete surface. These layers are the foundation for the only chemically active bond breaker when independently tested in accordance with ASTM C 156 to meet all the requirements of ASTM C 309 (Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete)

StarSeal Clean Lift not only meets this curing standard but also can be used on any type of finished concrete slab without any additional supplemental curing. In addition, since the concrete slab is properly cured, the product will reduce surface defects such as crazing, spider cracking, shrinkage, dusting, curling, carbonization and “stickers” producing a repair free, smooth, and uniform panel and slab.

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

BENEFITS

- Meets ASTM C-309 curing standard
- Reduces surface defects
- Excellent chemical and lubricating positive release for exceptional wall panel appearance
- Fast drying for optimum concrete pour scheduling
- Low odor
- Low VOC
- Osmotic effect is greatly reduced or eliminated
- Slab is quickly and easily cleaned
- Accepts subsequent treatments and coatings without excessive preparation or delay
- Can be used with concrete mixes containing fly ash
- Finished slab surface is harder
- Reduces material and labor costs
- 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.
- Apply using a low-pressure pump-up type sprayer. The sprayer must be clean. If cleaning is required, use **Certi-Vex[®] Equipment Cleaner**. After, 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 tip is generally recommended for most applications.
- Test applications should always be made by the end user/purchaser prior to overall use of the bond breaker.
- Mix well before each use.
- Do not dilute.

APPLICATION FRESH CONCRETE

StarSeal Clean Lift can be used on freshly placed and properly finished casting slab concrete under certain environmental site conditions and specific application instruction.

- Casting slab concrete can be broomed, rough texture, or a steel trowel finish. Note: A tight troweled finish is not required.
- On hot, windy or dry weather, lightly fog the slab with clean water prior to application.
- Apply immediately after completion of troweling and final finishing and after surface water has disappeared.
- Do not apply until joint saw cutting is complete.
- Apply until a uniform surface film is achieved.
- Do not over apply as this could slow dry time.

COVERAGE /ESTIMATING-FRESH CONCRETE

- Apply evenly to uniform unbroken surface film.
- Typical rate of application is 200 sq.ft. /gal. (5.0 m²/L) but can vary depending on site conditions.
- Concrete mix design, vapor barriers, type of finish and weather conditions can affect rate of application and dry time.
- Allow to dry.

BOND BREAKER APPLICATION TO CASTING SLAB

- The concrete coated with StarSeal Clean Lift should be completely cleaned of dust, dirt, contaminants and foreign objects prior to the bond breaker application.
- When the cured casting slab has been approved, apply bond breaker coats.
- The first coat of StarSeal Clean Lift should be applied at a rate of 400 sq. ft. / gal. with a roller or sprayer and allowed to dry tack free but slightly slippery.
- After the first coat is dry, a second coat should be applied in the same manner, at a rate of 600 sq. ft. / gal. in an opposite direction or 90° to the application direction of the first coat.

CASTING SLAB TESTING

- Prior to wall pouring StarSeal Clean Lift must be checked by the application of water droplets to several 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 has a uniform appearance, the application is sufficient to proceed with concrete placement.
- If water soaks into the casting slab surface or a noticeable color change is apparent, additional material should be applied prior to placing lift slab concrete.

SPECIFICATIONS/COMPLIANCE

- VOC <350 grams/liter or <2.92 #/gallon
Meets VOC levels throughout the United States:
 - USEPA AIM - Bond Breaker
 - OTC - Bond Breaker
 - LADCO/Canada/CARB - Bond Breaker
- Meets the requirements of ASTM C-309, Type 1, Class B-lab report 1110-3
- CSI reference 03 47 00 - Site Cast Construction

DRY TIMES/WEATHER & 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 (21° C).
- 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.

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 Super Degreaser & Cleaner** or **StarSeal EF Degreaser & Cleaner** (See specific VEXCON product data sheet for proper cleaning instructions.)
- When the concrete is clean, dry, and water absorbent, the concrete is ready for application of coating or hardening.

COATING or HARDENING CASTING SLAB

- Vexcon manufactures 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 sell sheet.
- Apply **PowerCoat® Epoxy Flexible Joint Sealant** to control joints.

PAINT/COATING TILT PANELS

- After proper cleaning, Vexcon paints and coatings and densifier can be applied immediately to the wall panels. (See specific VEXCON product data sheet for proper cleaning instructions.)
- Walls should be cleaned by power washing to remove all dirt, contaminants and excess bond breaker residue. Power washing with a minimum of 3500 psi and a rotating tip is recommended.
- To repair surface imperfections such as bug holes, rub-outs and cracks, use **Certi-Vex Patch FP**.
- To repair construction damage use **Certi-Vex Patch AP**
- Vexcon Manufactures 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 Coatings & Treatments brochure and Tilt-Up sell sheet

SHORT SPECIFICATION

03 47 00: Basis of design: VOC compliant membrane forming, reactive bond breaker system which meets ASTM C-309, compatible with Vexcon wall panel paint/coating materials as manufactured by Vexcon Chemicals.

SPECIAL NOTES

- Concrete that has not been properly finished and/or not properly cured may not have proper surface properties, limiting the performance of StarSeal Clean Lift.
- Proper application of StarSeal Clean Lift is important to eliminate absorption of the bond breaker by the casting or waste slab.
- Not recommended when casting slab has been cured with curing blankets or plastic coverings without proper surface cleaning.
- After proper cleaning, residual StarSeal Clean 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, waste slabs and tilt wall panels must be properly designed, finished in accordance with industry standards and guidelines including those of ASTM, ACI and TCA.
- 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. Special care should be taken to keep dirt, water and contaminants away from the openings of containers.
- Shelf Life: If properly stored and handled in its original sealed container, three years from date of manufacture. Always rotate your stock.
- 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.
- Use of this product is limited to contractors with prior tilt-up experience.
- Prior to use contact Vexcon for complete warranty information.

PHYSICAL PROPERTIES

- Flash Point >200° F/>93° C
- Boiling Point 212° F/100° C
- Viscosity 10-12 seconds, #4 ford cup
- Solids 28 %
- Wt/gal 8.03#

PACKAGING

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

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 BB110 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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