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TILT-CRETE™

Water-Based Bond Breaker

DESCRIPTION

TILT-CRETE concrete cure and bond-breaker is a new, innovative, unique formula of proprietary, reactive organic materials in an aqueous dispersion. TILT-CRETE is low-VOC formulation that does not contain wax or hydro-carbon resins. TILT-CRETE has excellent stability and does not require continuous mixing throughout the application process; the material must be mixed only prior to application.

USES

TILT-CRETE is used as a cure and bond-breaker in tilt-up, lift-slab, and precast concrete construction. TILT-CRETE cures the concrete floor or casting slab and top sides of panels once poured. It is applied to the casting slab to function as a bond breaker between the casting slab and the tilt-up or lift-slab panel. The product should be used where appearance is a prime consideration in tilt-up and lift-slab construction.

PACKAGING

5 Gallon (18.93 L) Pails
55 Gallon (208.20 L) Drums

SHELF LIFE

When stored indoors in original, unopened containers at temperatures between 40° - 90° F, optimum performance and best use is obtained within one year of date of manufacture.

COVERAGE

Curing: 200 - 400 sq. ft./gal
Bond Breaking: 200 - 400 sq. ft./gal

Coverage will vary due to various amounts of different fillers, extenders, or additives in the concrete mix that can result in the concrete mass and finished surface having a higher than normal porosity and some very porous hotspots. Coverage

ratios must be adjusted to compensate for resulting penetration and additional coverage coats required to provide proper surface treatment. Always apply to a test area first to determine actual coverage rate before full-scale application.

SPECIFICATIONS

- Meets the moisture retention requirements of ASTM C 309 on steel-troweled surfaces
- Complies with National AIM, OTC Phase I and II, LADCO, Utah R307-361, CARB SCM 2007, and SCAQMD maximum allowable VOC requirements.

FEATURES/BENEFITS

- Cures concrete casting slab and top of tilt-up or lift-slab panel.
- Provides effective bond breaker between casting slab and tilt-up or lift-slab panel.
- Meets the moisture retention requirements of ASTM C309 when applied to steel-troweled surface finish.
- Excellent stability; does not require continuous mixing throughout the application; the material must be mixed only prior to application.
- Leaves no staining on wall panel or casting slab floor surfaces when properly applied.
- Resistant to sunlight induced oxidation damage when panel concrete placement is delayed multiple days.
- Resists wash off from normal rain and dew once dried.
- Provides both curing and bond breaking ... eliminates need for double inventory and handling.
- Low VOC... VOC <5 g/L

APPLICATION

Surface Preparation ... The casting bed should be clean and free of dust, dirt, and foreign matter. TILT-CRETE should be protected from all contaminants while drying.

Mixing ... Thoroughly agitate TILT-CRETE prior to each use. Proper mixing of TILT-CRETE prior to each use is very important to ensure successful panel separation and lifting. **CAUTION: TO AVOID FOAMING, DO NOT MIX EXCESSIVELY.** For proper mixing procedure refer to TILT-CRETE Proper Mixing Procedure Technical Bulletin.

CONTINUED ON THE REVERSE SIDE...

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Equipment... Application equipment must be clean and free of all previously used materials. TILT-CRETE may be applied with a commercial hand sprayer, such as a Chapin 1949. A spray nozzle that produces a flow of 0.4 GPM under 40 psi (.276 MPa) of pressure is recommended.

Curing Coat Application... Apply TILT-CRETE in a uniform surface film as soon as the surface water has evaporated, immediately after completion of troweling and final finishing operation.

Approval may be granted for the application of 1100 concrete cure or one of the VOCOMP series cure-and-seal products from W. R. MEADOWS to be used as a cure coat prior to the application of TILT-CRETE as a bond-breaker. NOTE: The application of 1100 or VOCOMP series will interfere with the normal reaction of TILT-CRETE with the casting slab surface. In this scenario, TILT-CRETE's resistance to rain is highly reduced. Always verify the presence of a uniform bond-breaker coat as indicated by a dry, soap-like feel prior to placing panel concrete.

First Bond Breaker Coat Application ... Apply TILT-CRETE to the point of rejection on the casting slab just prior to the placement of reinforcing steel. Spray at right angles to the cure coat spraying pattern.

Second Bond Breaker Coat Application... Wait for the first coat of TILT-CRETE to dry. Apply the second coat of TILT-CRETE at right angles to the previous coat. The number of bond-breaker coats and coverage rate needed to achieve a complete uniform film is dependent on the concrete mix design, placing and finishing procedures, environmental conditions, etc.

A proper application is indicated by the presence of a dry-soap feel uniformly apparent to touch over the treated surface. A grease-like feel to touch indicates over-application and can result in panel surface discoloration, dusting, surface irregularities, etc. Any dull spots must be recoated. Questionable areas can also be tested by dropping water on the surface. If the water beads-up or forms a bubble and does not penetrate the concrete surface, it is sealed. Any areas accepting penetration of the water must be recoated until a positive seal is achieved.

For both the curing and bond-breaking applications, once TILT-CRETE is sprayed on the surface, do not track over the slab until the surface is totally dry to touch.

NOTE: Panels sticking to the casting slab is the result of insufficient or improper application of the bond-breaker, i.e. not enough product applied as the concrete panel is placed. Please ensure that enough product has been placed on the casting slab and a complete, continuous film of TILT-CRETE has been created. Sufficient application of the bond-breaker is the responsibility of the contractor

applicator is also responsible to ensure that application conditions are acceptable as noted on this data sheet and to ensure that the correct coverage rate is used. For further application instructions and contractor responsibilities and assurances, please contact the W. R. MEADOWS technical services department.

Cleanup ... To remove improperly or over-applied TILT-CRETE from panels, W. R. MEADOWS recommends using a commercially available, heavy-duty, concrete degreaser/stripper.

PRECAUTIONS

DO NOT FREEZE. DO NOT DILUTE. If TILT-CRETE application as a cure to the casting slab is delayed for several hours or until the following day, the surface should be moistened with water before application of TILT-CRETE.

TILT-CRETE is not recommended to be used on broomed or rough surface finishes.

If it rains within 12 hours of application, TILT-CRETE will need to be reapplied.

For positive bond breaking, it is essential the casting slab be 100% sealed with TILT-CRETE. Visually and physically inspect the slab to witness the entire surface has a definite sheen. Any dull spots must be recoated. Questionable areas can also be tested by dropping water on the surface. If the water beads-up or forms a bubble and does not penetrate the concrete surface, it is sealed. Any areas accepting penetration of the water must be recoated until a positive seal is achieved.

If, after application of the bond-breaking coat, steel, or concrete-placing operations are delayed longer than two weeks, the bond-breaking coat should be inspected carefully to determine if it still provides 100% coverage. If rain strikes the surface before the coating is dry, any damaged areas must be recoated. After the TILT-CRETE film is dry, normal rain should not affect the surface. However, W. R. MEADOWS always recommends to inspect the slab to make sure of proper coverage.

Concrete mix designs that contain in excess of 20% pozzolans such as fly ash may require additional coats of the bond breaker.

Do not under apply or over apply TILT-CRETE. If less than the recommended amount is applied, the film may not be continuous or of sufficient thickness to inhibit inter-slab moisture penetration which may result in panels sticking to the casting slab. Over-application can result in delays due to drying, discoloration, panel surface dusting, surface irregularities, etc.

If a curing or curing-and-sealing compound other than 1100 or VOCOMP series products are used, they must be removed prior to the application of TILT-CRETE. TILT-CRETE is not recommended to be used with any other manufacturers' bond-breakers.

During hot weather concreting as defined in *ACI 305 Guide to Hot Weather Concreting*, the use of 1100, VOCOMP Series or wet curing is recommended in conjunction with TILT-CRETE. For more information please contact W. R. MEADOWS technical services.

Prior to any full-scale application of a subsequent paint, coating, sealer, adhesives sealant, grout, etc., W. R. MEADOWS recommends appropriate field testing be performed to verify that all desired/required appearance, performance, adhesion, etc. properties are achieved. Please refer to *ACI 551.1R: Guide to Tilt-Up Concrete Construction* for additional recommendations.

LEED INFORMATION

May help contribute to LEED credits:

- EQc2: Low-Emitting Materials [For Healthcare and Schools (exterior-applied products) ONLY]

For most current data sheet, further LEED information, and SDS, visit www.wrmeadows.com.



LIMITED WARRANTY

W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

Disclaimer

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