



SHEP CURE & TILT PLUS SB

CURE & BONDBREAKER, V.O.C. COMPLIANT

DESCRIPTION

Shep Cure & Tilt Plus SB is a reactive and membrane forming bondbreaker for use in tilt wall construction. Shep Cure & Tilt Plus SB is a special formula of polymers and propriety ingredients designed to provide clean, easy lifting of tilt panels. Shep Cure & Tilt Plus SB has a fugitive dye for ease of visual inspection during application and is also available without the dye upon special request.

PRIMARY APPLICATIONS

Shep Cure & Tilt Plus SB is designed to allow for easy lifting of tilt wall panels from properly designed, finished and cured concrete casting beds.

FEATURES & BENEFITS

- Chemically reactive
- Good resistance to rain and weather
- Panels lift cleanly
- Minimal panel residue
- Resists construction foot traffic

NOTE: Prior to application, read, and follow all current (verify literature is current) literature instructions, limitations, and precautions in this data sheet, on the MSDS, and on the label of the container prior to use.

The instructions provided by this technical data sheet apply to general average 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 bondbreaker. This is at a minimum necessary to verify that the amounts of bondbreaker purchased and anticipated to be applied is sufficient to result in the correct application coverage rates and end performance of the product based upon the specific site conditions. The concrete casting slab, waste slabs and tilt wall panels must be properly designed, finished and cured in accordance with industry standards and guidelines including those of ACI and TCA.

DIRECTIONS FOR USE

Cure Coat: Concrete casting slabs must be smooth, dense, sound, of adequate thickness, and well cured. Improper or inadequate curing or finishing will increase slab permeability and decrease bondbreaker effectiveness. Shep Cure & Tilt Plus SB can be used as an effective curing aid under limited environmental conditions. However, it is recommended per ACI & ASTM to cure the concrete in accordance with ASTM C-309. The use of Hydroseal 18 or other approved solvent-based curing compounds meeting ASTM C-309 is recommended. Curing membranes must be allowed to fully dry prior to application of the bond breaker coats. Contact CMC Construction Services for additional information and recommendations.

Always apply the cure coat IMMEDIATELY after completion of troweling and final finishing and after the surface water has disappeared. In extremely hot windy or dry weather lightly fog the slab with clean water prior to cure coat.

If and when Shep Cure & Tilt Plus SB is used as the cure coat, apply uniformly @ 200 sf²/gal (4.9 m²/L). Over application of the Shep Cure & Tilt Plus SB cure coat may result in delays due to longer drying time for the cure coat, panel discoloration and/or excessive bondbreaker transfer to the panel surface. Under application of the Shep Cure & Tilt Plus SB cure coat can result in crazing or cracking of the casting slab surface as well as a weakened and overly porous slab surface.

Spray Equipment: The Shep Cure & Tilt Plus SB Bondbreaker must be applied by a high quality "low-pressure pump-up type sprayer" such as the Shepler's Performance Products sprayer. The tip size must be able to produce a well atomized spray pattern. The sprayer must be kept under sufficient pressure to correctly atomize the Shep Cure & Tilt Plus SB without streaming, tailing, or spitting. A 1/2 (0.5) gal. / minute tip is generally recommended for most applications. The use of an improper sprayer, a dirty sprayer, lower than adequate pressures or wrong tip can result in an uneven application, and either over or under application.

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PRODUCT INFORMATION ■ TECHNICAL DATA SHEET

Continued inside

First Bondbreaker Coat: The casting bed should be free of all foreign material, salts, laitance and the Shep Cure & Tilt Plus SB protected, while drying, from all contaminants or particulate matter (i.e., dust, dirt, etc.). Just prior to placing the reinforcing steel, and within two weeks of pouring the panels, spray apply the first bondbreaker application of Shep Cure & Tilt Plus SB at 400 ft²/gal. (9.8m²/L) to the point of rejection. Spray at right angles to curing compound spray pattern. Specific site conditions may dictate coverage rates other than the normal recommended coverage rates. Adjust the actual applied rates accordingly.

Second Bondbreaker Coat: Wait until first coat dries, approximately 2 hours depending on temperature and humidity, and apply a second coat at right angles to the previous coat. Coverage for the second coat will typically be 550 to 700 ft²/gal. (13.5-17.2 m²/L). If light or white spots appear within 10-40 minutes after spraying, those areas are extra porous and should be fogged with water followed by a reapplication of the Shep Cure & Tilt Plus SB at 550 to 700 ft²/gal. (13.5-17.2 m²/L). Specific site conditions may dictate coverage rates other than the normal recommended coverage rates. Adjust the actual applied rates accordingly.

The number of bondbreaker coats and coverage rates necessary to achieve a complete uniform coverage is highly dependant on the concrete casting slab mix design as well as its inherent porosity, finishing techniques, and other related site specific ambient conditions. Adequate bondbreaker application is in large part dependant upon development of a uniform soap like feel of the bondbreaker treated surface as well as beading of water. Bondbreaker can also be checked by rolling up a small ball like amount under thumb pressure.

Extremely porous or rough casting slabs will necessitate successive additional coats of bondbreaker to achieve a consistent uniform membrane of the correct coverage rate and membrane thickness. Extremely porous or otherwise absorptive slabs can also be fogged with water to a saturated surface dry (SSD) condition prior to application of bondbreaker.

Bondbreaker Test: To verify the integrity of the bondbreaker coat, sprinkle water on the casting bed. (Water should bead up as on a freshly waxed automobile). The applied, dried material should have a soap like feel, uniformly over the substrate. The application should appear uniform and continuous, with light areas requiring re-application. Failure to verify proper uniform application and coverage rates can result in panel sticking. Testing must be performed over a large enough surface area in an adequate testing frequency to provide accurate and meaningful results.

It is entirely the contractor's responsibility to verify that the bondbreaker has been evenly and uniformly applied at the recommended application/coverage rates given the various concrete mix design, densities, finishes, and porosity conditions on each project.

Hot Weather Procedures: In hot weather, the casting slab must be flooded with water to reduce its porosity and cool it down prior to the first bond breaker application of Shep Cure & Tilt Plus SB. Thoroughly saturate the slab with water, and then squeegee off the excess, removing all the free standing water from the surface, then immediately proceed with applying the first application of the Shep Cure & Tilt Plus SB. Delaying the application of the bondbreaker after wetting of the slab will result in over penetration and lessen bondbreaker effectiveness and panel sticking may result. Prior to concrete placement wet down the casting slab with cool water; excessive water should be blown out immediately prior to the concrete placement. Take care when placing concrete to avoid abrading or scouring the bond breaker on the casting bed as braded or scoured spots or areas may result in stuck panels. Discharge the concrete into previously placed fresh concrete.

Clean Up: For Tools & Equipment Use Mineral Spirits, Naphtha or Xylol

DRY TIME

Approximately 2 hours at 70°F (21°C). Cooler temperatures higher humidity and thicker bondbreaker coats will extend the dry time.

WASTE DISPOSAL

Dispose of waste material and empty packaging in accordance with all Federal, State and Local requirements. Refer to product's MSDS for further information.

PACKAGING

5 gallon pails and 55 gallon drums

ESTIMATED COVERAGE

Cure Coat: 200 ft²/gal (4.9m²/L)

Bondbreaker Coats:

First Coat: 400 ft²/gal. (9.8 m²/L)

Second Coat: 550-700 ft²/gal (13.5-17.2 m²/L)

The above recommended coverage rates are averages based on average site and concrete conditions. Complete and uniform coverage of the casting slab varies considerably with variations in the placing, curing, concrete mix design, density, finishing, and site specific ambient conditions. It is not possible for the recommendations provided by this data sheet to accommodate and account for all variables associated with the coverage rate and application of the bondbreaker. It is the contractor's responsibility to verify that the applied coverage rates and overall application of the bondbreaker is commensurate with the specific site variables and conditions.

STORAGE

The Shep Cure & Tilt Plus SB should be stored in a tightly secured original factory container. Store in the horizontal position to prevent moisture accumulation on the drum head. Keep from freezing.

LIMITATIONS

- Avoid contamination by storing containers in clean, dry area and keeping lids tightly sealed. The shelf life of Shep Cure & Tilt Plus SB is 12 months when properly stored. Do not spray on reinforcing steel.
- Not recommended when concrete mix designs using fly ash or other pozzolonic materials without first contacting the Technical Services Dept. for specific recommendations. Fly ash can result in slower concrete strength development.
- Failure to observe specific application rates and procedures may lead to sticking panels.
- Not recommended for application to broom finished or otherwise rough, porous or weak unsound concrete.
- Do not apply in rain or if rain is forecast within 12 hours of the application. Casting slab surfaces exposed to rain may require reapplication of the bondbreaker at a coverage rate at 550-700 ft²/gal (13.5-17.2 m²/l). Do not apply below 40°F (4°C) or when ambient temperatures are expected to fall below 40°F (4°C) within 12 hours.
- Not recommended for application to casting slab concrete that has been cured with curing blankets or plastic coverings without first removing the salts from the concrete's surface before application of the bondbreaker. Surface salts can result in surface defects.
- Application of the bondbreaker as a cure coat during cool weather or when a moisture barrier has been used will result in longer than normal drying times. Application in two thin coats rather than one thick coat will reduce the dry time.
- Properly applied, casting beds and tilt panels can normally be coated or sealed after appropriate cleaning and or surface preparation of the surfaces. The manufacture of the coating, paint, sealer, adhesive or other subsequent treatments should be consulted for specific substrate cleaning and preparation requirements and instructions prior to painting.

- The Tilt-Up Concrete Association (TCA) Tilt Tips "Painting Tilt-Up Panels" document should be understood and followed if painting of the tilt panels is anticipated. Over application can lead to excessive transfer to the panels and potentially cause problems with subsequent paint adhesion.
- A mock up test panel of any subsequent application of paint/coatings or other membrane forming treatments should always be applied and tested to verify proper coating adhesion and adequate cleaning and surface preparation of the tilt panels.
- Improper concrete mix designs, overly porous or weak casting slab concrete, failure to properly finish and/or cure the concrete and/or uneven or improper application and insufficient mixing of the bondbreaker can lead to panel sticking.

PRECAUTIONS

- **WARNING:** Harmful if swallowed. Call physician for assistance. Avoid contact with skin or eyes, wear protective clothing. Flush eyes with water for 15 minutes if contact occurs. Wash from skin with soap and water.

LIMITED WARRANTY: NOTICE - READ CAREFULLY. CONDITIONS OF SALE. Manufacturer offers this product for sale subject to, and Buyer and all users are deemed to have accepted, the following conditions of sale and limited warranty which may be varied by written agreement of a duly authorized corporate officer of Manufacturer. No other representative of or for Manufacturer is authorized to grant any warranty or to waive limitation of liability set forth below.

Warranty Limitation: Manufacturer warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, Manufacturer will replace the defective product with new product without charge to the purchaser. Manufacturer makes NO OTHER WARRANTY, either expressed or implied, concerning this product. There is NO WARRANTY OF MERCHANTABILITY. In no case shall Manufacturer be liable for special, indirect or consequential damages resulting from the use or handling of the product, and no claim of any kind shall be greater in amount than the purchase price of the product in respect of which damages are claimed.

Inherent Risk: MANUFACTURER MAKES NO WARRANTY TO THE PERFORMANCE OF THE PRODUCT AFTER IT IS APPLIED BY THE PURCHASER, AND PURCHASER ASSUMES ALL RISKS ASSOCIATED WITH THE USE OR APPLICATION OF THE PRODUCT.