



# Cure & Lift EF

## EARTH FRIENDLY, BIO-BASED CURE & BONDBREAKER

### PRODUCT DESCRIPTION

Earth Friendly, Bio-Based bondbreaker for use in tilt wall construction that contributes to LEED EQ Credit 4.2. This bio-based material uniquely combines high performance with green attributes. EF formula contains < 100 g/L VOC, making it VOC compliant in all regions. CURE & LIFT EF performs a dual function, acting as both a membrane forming curing compound and a bondbreaker for tilt walls. As a curing compound, CURE & LIFT EF meets the requirements of ASTM C309 to maintain the moisture needed in freshly placed concrete for proper hydration. As a bondbreaker CURE & LIFT EF provides for clean, easy lifting of concrete tilt wall panels.

### USE

CURE & LIFT EF is designed for use in tilt wall construction to cure the concrete casting slabs and to act as a bondbreaker between the casting slabs and the tilt wall panels.

### BENEFITS

- ◇ Dual Function product, curing and bondbreaking
- ◇ Contributes to LEED EQ Credit 4.2
- ◇ Earth Friendly (EF), VOC < 100 g/L
- ◇ Combines High Performance with Green Attributes
- ◇ Bio-based
- ◇ Non-Toxic
- ◇ Environmentally Safe
- ◇ Wildlife Friendly (marine/freshwater/land)
- ◇ No Fumes
- ◇ Non-Staining
- ◇ Reduced Dusting
- ◇ Minimal Buildup
- ◇ Easy Clean Up with Water
- ◇ Non-Flammable
- ◇ Safe to Use & Store

### APPLICABLE STANDARDS

Meets the requirements of ASTM C309

### PROPERTIES, TEST DATA

Typical Lab Data  
Moisture retention: ASTM C156: <0.55 g/l 72 hours  
Non-volatile content: 25%  
Weight/gal: 8.40 +/- 0.05 lbs./gal.

### VOC

VOC compliant in all areas, actual VOC = 30 g/L

### APPLICATION

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.

### Mixing

Stir well prior to use.

### Placement

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. CURE & LIFT EF must be applied as a 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. Apply uniformly @ 200 ft<sup>2</sup>/gal (4.9 m<sup>2</sup>/L). Over application of the cure coat may result in delays due to longer drying time for the cure coat, panel discoloration and/or excessive bond breaker transfer to the panel surface. Under application of the cure coat can result in crazing or cracking of the casting slab surface as well as a weakened and overly porous slab surface which can lead to panel sticking.

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**SPRAY EQUIPMENT**

The CURE & LIFT EF must be applied by a high quality "low-pressure pump-up type sprayer" such as manufactured by Hudson, Chapin or others. 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 CURE & LIFT EF 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, dirty sprayer, lower than adequate pressures or wrong tip can result in an uneven application, and either an over or under application.

**First Bondbreaker Coat:**

Just prior to placing the reinforcing steel, and within two weeks of pouring the panels, spray apply the first bondbreaker application of at 400 ft<sup>2</sup>/gal. (9.8 m<sup>2</sup>/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 & humidity, and apply a second coat at right angles to the previous coat. Coverage for the second coat will typically be 600 ft<sup>2</sup>/gal. (14.8 m<sup>2</sup>/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 CURE & LIFT EF at 600 ft<sup>2</sup>/gal. (14.8 m<sup>2</sup>/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 CURE & LIFT EF. 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 CURE & LIFT EF. 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 abraded or scoured spots or areas may result in stuck panels. Discharge the concrete into previously placed fresh concrete.

**DRY TIME:**

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

**CLEAN UP:**

Use clean water for clean up.

**WASTE DISPOSAL:**

Dispose of waste material in accordance with federal, state and local requirements. Refer to the product's MSDS for further information.

**ESTIMATED COVERAGE:**

 Cure Coat: 200 ft<sup>2</sup>/gal (4.9 m<sup>2</sup>/L)

**Bondbreaker:**

 1st Coat: 400 ft<sup>2</sup>/gal ( 9.8 m<sup>2</sup>/L)

 2nd Coat: 600 ft<sup>2</sup>/gal (14.8 m<sup>2</sup>/L)

The above recommended coverage rates are averages based on average site and concrete conditions. Complete and uniform coverage 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.

**PACKAGING:**

ITEM #	Package	Size	
		Gals.	Liter
308887	Pail	5	18.9
308888	Drum	55	208

**STORAGE:**

Keep from freezing. Store in original containers, keeping container lids, spouts and/or bungs tightly sealed. Store in the horizontal position to prevent moisture accumulation on the drum head.

Shelf life of 1 year in properly stored sealed containers.

**COLOR:**

Milky white, dries clear

**LIMITATIONS:**

Avoid using bondbreaker that may have frozen. Avoid contamination by storing containers in clean, dry area and keeping lids tightly sealed. Do not spray on reinforcing steel.

Never apply bondbreaker unless it has been thoroughly and properly mixed before use.

**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.

Bondbreaker should be re-mixed at the start of each day.

**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 of 400 – 600 ft<sup>2</sup>/gal (9.8 – 14.8 m<sup>2</sup>/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:**

Keep out of reach of children. Do not take internally. If swallowed contact a physician. If splashed in eyes, wash repeatedly with water and contact a physician. Read



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Keep out of reach of children. Do not take internally. If swallowed contact a physician. If splashed in eyes, wash repeatedly with water and contact a physician. Read products MSDS prior to use for additional information.

**MANUFACTURER**

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