

# Tilt-Eez VOC™

## Cure And Bondbreaker

### Description

*Tilt-Eez VOCä is a bondbreaker formulated of synthetic long chain film forming polymers and surface release additives. Tilt-Eez VOCä contains no silicones, waxes or other cheapening agents. Tilt-Eez VOCä dissipates or can be easily removed to allow for the effective application and performance of penetrating floor sealers/hardeners such as Conspec's Intraseal. Tilt-Eez VOCä is V.O.C. compliant.*

### Manufacturer

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### Use

Tilt-Eez VOC™ is a resin based, membrane forming cure and bondbreaker compound meeting the requirements of ASTM C-309, Type I, Classes A&B.

Tilt-Eez VOC™ is the result of exhaustive research into the chemical needs of the tilt-up construction industry. Tilt-Eez VOC™ meets the V.O.C. requirements of the tilt-up industry.

Tilt-Eez VOC™ dries to foot traffic in minutes, rather than hours, allowing work to proceed faster and speeding project completion. This quick dry benefit reduces dirt build-up that permanently discolors panels that is prevalent on slow dry silicone and polybutene based bondbreakers.

Tilt-Eez VOC™ contains a higher solids content than most bondbreakers. Tilt-Eez VOC may be used on a variety of casting bed concrete mix designs, including those containing fly ash and other additives.

Tilt-Eez VOC™ forms a resinous film that dissipates and begins to break down in 4-6 weeks. The rate of dissipation is dependent upon climatic conditions, rate of application, exposure to ultraviolet light and construction traffic. After dissipation, residual material is normally easy to remove by pressure washing, allowing subsequent coatings or treatments, always consult with the coatings/sealer manufacturers for surface preparation instructions and always install a mock-up and test for proper adhesion.

**Note: To accelerate film removal, a stiff wire brush, light sandblasting or other mechanical means may be used.**

### Applicable Standards

Tilt-Eez VOC™ exceeds the requirements of ASTM C-309-91, Type 1D, Class A and B and the Tilt-up Concrete Association (T.C.A.) Guideline Specification for cure/bondbreaker.

### Architectural Specifications

**Bondbreaker Compound:** A bondbreaker shall be applied to all concrete surfaces. The primary bondbreaker/cure coat application shall be applied at the rate of 300 sq. ft. per gal. (7.4 m<sup>2</sup>/l) immediately after final finishing of the concrete. A second and third bondbreaker coat shall be applied to the casting bed at the rate of 600-900 sq. ft. per gal. (14.7-22.05 m<sup>2</sup>/l) prior to steel placement. Approved product: Conspec Tilt-Eez VOC™ or approved equivalent.

### Application

**Primary Bondbreaker/Cure Coat Application:** The primary bondbreaker/cure coat is necessary not only to produce well cured, maximum strength concrete but is also the primary coat for effective bondbreaking. Tilt-Eez VOC™ cure coat must be applied evenly at 300 square feet per gallon (7.4 m<sup>2</sup>/l) IMMEDIATELY following the final hard trowelling of the concrete, especially in hot, windy weather, with low relative humidity. Timing of this application is critical to ensure that a complete membrane is formed to adequately cure the concrete. In extremely hot weather, it may be desirable to fog-spray the slab immediately ahead of the cure and bondbreaker application. If moisture is not present at the time of applications, the material may be absorbed into the concrete leaving no membrane to cure or separate the tilt-up panel.

If an acrylic cure and seal is required, Tilt-Eez VOC bondbreaker coats are compatible with Conspec's Cure & Seal VOC used as the curing compound.

In cold, damp weather, less material may be required. Tilt-Eez VOC will not freeze, separate or greatly increase in viscosity down to 20°F (-6.7°C), however cold weather construction practices such as ACI guidelines for cold weather concreting should be followed. Never apply Tilt-Eez VOC to a frozen or frost filled casting slab.

Concrete placed in the same area under the same ambient conditions may have varying absorption rates which can cause the Tilt-Eez VOC to be absorbed at different rates. Care should be taken during application to ensure that a uniform, complete film is formed, avoiding over-application. A red fugitive dye which disappears completely upon drying, leaving no stains, has been added to assure identification of complete and even coverage. Tilt-Eez VOC™ must be sprayed on the damp concrete until the red dye is visible and remains for at least five minutes. It can be pointed out that the quantity of material used in the primary bondbreaker/cure coat - the most important coat - will be less, if applied at the proper time.

**Bondbreaker Coat:** Tilt-Eez VOC™ must be applied just prior to placement of reinforcing steel in two light coats at 600 to 900 square feet per gallon (14.7 - 22.05 m<sup>2</sup>/l) in two different directions at 90° right angles to each other allowing a minimum 15 minutes between coats or such time as the first coat becomes tack free. Spraying at right angles helps assures complete, uniform coverage. Care should be taken to ensure that the bondbreaker coat is not contaminated before drying by any particulate matter (i.e., dust, dirt, etc.). Any puddles of bondbreaker should be removed by wiping up immediately prior to drying.

Always test for proper bondbreaker installation by identifying the presence of a cured, tack free continuous Tilt-Eez VOC membrane throughout the panel area. If this membrane is hard, intact and can be scratched-off with a knife, the panels will part. If no membrane is present or if water sprinkled on the surface is immediately soaked into the casting bed, re-spray Tilt-Eez VOC. Application rates allow for variables in the condition of the casting bed and weather.

In severely hot, dry weather, strict adherence to ACI Committee Report 305R will prevent improper hydration of the panels.

Do not over-apply. Over application can transfer to the tilt panels and create the need for additional surface preparation of both the casting slab and tilt panel prior to subsequent application of coatings or sealers. Allow Tilt-Eez VOC™ to completely dry before pouring.

*Casting Over Old And Porous Concrete:* When casting over porous concrete or an existing old slab imperative to ensure that a membrane is created on the surface. Thoroughly soaking the casting slab surface with water, create a surface saturated dry (SSD) condition will help retain the Tilt-Eez VOC membrane on the surface where it is needed. Once a properly applied membrane is verified, normal bondbreaking methods may be employed.

*Waste Slabs:* Some job conditions require casting thin temporary slabs for stacking tilt-up panels. When even a small amount of bonding occurs, the thin casting slab, due to its lack of mass, may be lifted with the panel.

As the waste slab is ultimately to be removed, it is often considered unnecessary to properly finish and cure the waste slab. It is imperative to properly design, finish, and cure the waste slabs to avoid panel sticking.

A few waste slab guidelines are as follows:

1. Cast the temporary slab at least 3" (7.6 cm) thick.
2. Moisten the earth prior to placement.
3. Hard trowel finish as with permanent floor slabs.
4. Spray cure coat of bondbreaker immediately after troweling. Ensure proper application rate by the visible appearance of the fugitive dye remains for at least five minutes.
5. Prior to placement of the tilt-up panel, test for proper application of the Tilt-Eez VOC by sprinkling water on the surface. If water is readily absorbed into the casting bed or the lack of a continuous visible membrane is apparent, re-apply.

## Packaging

- 55 gallon drums (208.2 liters)
- 5 gallon pails (18.9 liters)
- 1 gallon cans (6 to a case)(3.9 liters)

## Limitations/Precautions

**Caution...Combustible.** Contains petroleum distillates. Keep out of reach of children. Do not take internally. Do not breathe vapors. Avoid prolonged contact with skin. If swallowed, do not induce vomiting - call physician. If splashed in eyes, wash repeatedly with clean water and call a physician. Keep away from heat, sparks and open flame.

*Recommended safety equipment:* Rubber gloves, goggles and if applied in areas of poor or inadequate ventilation, use mine safety appliances, mask and canister:

- Organic Vapor Mask*  
(No. 457081)
- Organic Vapor Canister*  
(No. 77705GAM)

*Threshold limit value:* 100 PPM. Ventilation system should be capable of exchanging total air volume in application area in 30 minutes or less.

Avoid hazards by following all precautions found in the Material Safety Data Sheet (MSDS), product labels and technical literature. Please read this information prior to using the product.

## V.O.C. Content

Less than 700 g/l. Complies with Federal V.O.C. standards for Bondbreakers. Do not thin or dilute.

## Warranty

Conspec warrants, for 12 months from the date of manufacture or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Conspec, the product is free of manufacturing defects and conforms to Conspec's published specifications in force on the date of acceptance by Conspec of the order. Conspec shall only be liable under this warranty if the material has been applied, used, and stored in accordance with Conspec's instructions in this technical data sheet. The purchaser must examine the product when received and promptly notify Conspec in writing of any non-conformity before the product is used, or no later than 30 days after such non-conformity is first discovered. If Conspec, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase

price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty. Only a Conspec officer is authorized to modify this warranty. The sales information on the Conspec website and received by the customer during the sales process does not supersede this warranty and the specifications of the product in force on the date of sale. **THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.**

### Limitation of Liability

Conspec shall not be liable in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injury), or economic losses of any kind; or for any special, incidental, indirect, consequential, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, this Agreement, even if Conspec could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this agreement, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.

## Storage

Tilt-Eez VOC™ should be stored in tightly sealed original factory containers. Store in a horizontal position to prevent moisture accumulation on the drum head.

## Filing System

Additional literature and the Material Safety Data Sheet can be obtained from Conspec upon request.