



Guide to Tilt-Up Bond Breakers

A bond breaker is a “material used to prevent adhesion of the newly placed concrete to the substrate”.

When a bond breaker is needed at a construction joint, a curing compound, form release agent and the like can act as a bond breaker. Bond breakers used in tilt-wall construction, however, are specifically formulated for that purpose and the chemistry involved with these bond breakers is different than that of other “bond breakers”.

*ACI Cement and Concrete Terminology

Curing:

Proper, and immediate, curing is vital to a successful tilt-wall project

- Timing is more critical on the cure coat than the bond breaker coat
- Proper curing will help create a less porous, denser surface
- The denser the surface the easier the panels will lift
- Ensure compatibility of the cure and bond breaker by using the Dayton System
- Refer to the bond breaker’s TDS for compatible cures or cure & seals.

Preparation for applying the Bond Breaker

- All surfaces must be clean
- For hot weather precautions, prior to the first bond breaker application, soak the slab to satisfy its ‘thirst’, cooling the substrate and reducing its porosity.
- After soaking, squeegee off the excess water then immediately apply the bond breaker.

Placement of the Bond Breaker

- Always read and follow the instructions in the current data sheet
- Apply the bond breaker evenly, being sure not to leave puddles
- A minimum of two bond breaker applications are required, placed perpendicular to the previous coat.

Note:

Tilt-up bond breakers are a high liability application that deserves careful and close attention. Failure to adequately cure the slab or apply enough bond breaker can result in stuck or sticking panels.

Prior to the concrete pour

“Good Indications”, Three quick checks that indicate good coverage.

1. Observe a uniform appearance of the bond breaker application
2. Feel a filmy/ soapy residue on the surface
3. Water beads on surface of the panel bed.

Additional Resources

- **Bond Breaker Use and Application Guide**, Dayton Superior Corporation
- **The Construction of Tilt-Up**, Tilt-Up Concrete Association



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Dayton Superior Bond Breakers:

All Dayton Superior bond breakers are membrane forming and react with fresh concrete.

Sure-Lift™ J6WB

- Water-based
- Compliant per CDPH V1.2
- MAS Certified Green

Maxi-Tilt™ with Dye

- Water-based
- Compliant per CDPH V1.2
- MAS Certified Green
- Fugitive dye for ease of inspection

Sure-Lift™ with Dye J6D

- Solvent based
- Fugitive dye for ease of inspection
- Good resistance to rain and weather

Sure-Lift™ J6LVOC

- Exempt solvent based
- VOC content of less than 350 g/L
- Fugitive dye for ease of inspection
- Good resistance to rain and weather

Compatible Cures with Bond Breakers:

Sure Lift J6WB or Maxi-Tilt with Dye

- Sure Lift J6WB or Maxi-Tilt with Dye (Cure coat)
- Cure & Seal 309 J18
- Cure & Seal 309 EF
- Cure & Seal 1315 EF
- Cure & Seal 1315 J22WB
- Clear Resin Cure J11W

Sure Lift with Dye J6D

- Sure Lift with Dye J6D (cure coat)
- Cure & Seal 25% J22UV
- Cure & Seal LV 25% J20UV
- Cure & Seal 30% J23UV

Sure Lift J6LVOC

- Sure Lift J6LVOC (cure coat)