

Conlift Bondbreaker Waterbased

New generation, chemically active cure and bondbreaker for tilt-up, lift slab and precast construction

USES

A cure and bondbreaker in tilt-up, lift slab and precast concrete construction. Use to cure the top side of tilt wall panels to prevent the formation of shrinkage cracks. Use as a cure only on all types of interior, smooth troweled concrete flatwork where the use of conventional resin based curing compounds is impractical.

ADVANTAGES

- Resistant to the "osmotic effect" by restricting natural tendency for water to migrate from freshly placed panel concrete through the bondbreaker film and into the less moist casting slab. Reducing the "osmotic effect" greatly improves panel concrete surface appearance resulting in a smooth, uniform surface profile, color and appearance
- Achieves exceptional wall panel surface appearance
- Leaves no residue or resulting staining on wall panel or casting slab floor surfaces when properly applied
- Achieves a crisp, positive release that minimises panel surface defects and reduces resurfacing/ patching costs
- Does not contain any wax or hydrocarbon resins like many conventional bondbreakers which often leave a difficult-to-remove residue on wall panel and casting slab surfaces. When this residue is not properly removed, it often causes floor and exterior wall panel paint and coating adhesion problems
- Meets the modified moisture retention properties of ASTM C-309 when applied to a steel-troweled surface
- Special blend of fast-drying solvents significantly reduces drying time
- Improved emulsion stability means Conlift Bondbreaker Waterbased stays mixed longer than conventional water based bondbreakers
- Resists washoff from normal rain showers and dew once dry
- Dust, dirt and mud can be easily removed from casting slab floor surfaces by washing with low pressure water when Conlift Bondbreaker Waterbased is used as both the cure and bondbreaker

- Resistant to sunlight induced oxidation damage that can necessitate the reapplication of competitive bondbreakers even when panel concrete placement is delayed a few days
- Green Engineered™ – better for health and the environment

DESCRIPTION

In contrast to most conventional cure and bondbreakers, Conlift Bondbreaker Waterbased does not contain any wax or hydrocarbon resins and, as a result, does not depend on a physical barrier deposited on top of the casting slab to prevent bonding. Instead, Conlift Bondbreaker Waterbased consists of a special formulation of chemically reactive organic compounds in a predominately water based solvent system which chemically react with calcium hydroxide, a byproduct of the cement hydration reaction, present in the concrete surface pores.

The reaction products are amorphous gels which, in conjunction with other combined special organic compounds in Conlift Bondbreaker Waterbased, effectively seal concrete surface pores. Moisture entry or exit is restricted, allowing good retention of concrete mixing water to assist in providing proper cement hydration and concrete curing, minimizing concrete surface cracking and crazing.

Properly applied, Conlift Bondbreaker Waterbased positively prevents the bonding of tilt wall panels to casting slab floor surfaces.

PROPERTIES

Colour:	White liquid
Clarity:	Opaque Emulsion
Bulk Density:	960 g/l
VOC:	<600 g/l
Viscosity:	28 sec @37°C
Vapour Pressure:	<16 mmHg @ 20°C



PARCHEM	TILT UP		
TECHNICAL DATA SHEET	JANUARY 2010		
www.parchem.com.au	7 Lucca Road, Wyong NSW 2259	Phone 1300 737 787	ABN 80 069 961 968 1

APPLICATION INSTRUCTIONS

Site environmental conditions, substrate conditions and concrete mix design have a major effect on product selection, application methods, procedures and rates, appearance and performance. Product literature provides general information applicable to some conditions. However, an adequate production test application by the purchaser or installer in advance of field scale use is mandatory (irrespective of any other verbal or written representations) to verify that product and quantities purchased can be satisfactorily applied and will achieve desired appearance and performance under intended use conditions.

Form surfaces should be reasonably dry and clean prior to application.

For architectural or exposed concrete surfaces, remove all concrete buildup, rust, mill scale and existing form oil residue before application.

Conlift Bondbreaker Waterbased should not be diluted. Conlift Bondbreaker Waterbased in the concentrated version is shipped in a short-filled container and requires dilution by filling the container to capacity with water and mixing well. Conlift Bondbreaker Waterbased should be mixed well before each use. The use of Parchem's specially designed drum agitator for mixing 208 L drums and tote agitator for mixing 1047 L is recommended.

Spray application is recommended using SP35C Sprayer. Both are equipped with the proper nozzle size to ensure uniform product distribution (see following page).

Typical application range on steel, plastic and resins coated wood forms is 62 - 75 m²/l.

Do not over apply. Excess material, runs and puddles can adversely affect performance and should be picked up promptly with rags.

Prevent material overspray from contacting reinforcing steel and/or prestressed cables.

Overspray and application equipment can be cleaned with mineral spirits.

PRECAUTIONS

Not recommended for use as a bondbreaker on broom finished or rough finished concrete surfaces.

Not recommended for application over any other manufacturer's inorganic silicate based floor sealer, hardener or organic resin based curing, sealing or combination cure and seal product. Failure to follow this recommendation can result in panel surface defects or panel sticking.

If a delay of more than 2 weeks occurs between the final bondbreaker application coat and panel concrete placement, it will be necessary to check for a sufficient

bondbreaker film on the casting slab. If the bondbreaker film is determined to be insufficient, additional bondbreaker coat(s) must be reapplied as necessary before concrete placement.

Protect from freezing. If allowed to freeze, product packaging may rupture and the emulsion stability of this product may be affected, making it difficult to keep product mixed during application. Product which is suspected of freezing should not be used.

Verify that product is within the "use by" date stated on product packaging. Do not use expired product. The use of expired product may result in poor product performance or failure.

Not recommended for application over or in conjunction with any other manufacturer's tilt-up bondbreaker.

Not recommended for application in the rain or if rain is anticipated within 12 hours of application. Surfaces exposed to rain or running water within this time period will require reapplication.

Not recommended for bondbreaker application to casting slab surfaces previously cured with polyethylene or curing blankets without first removing all salt deposits. Failure to remove all salt deposits can result in panel surface blemishes or defects.

Not recommended for application to casting slab surfaces which are frozen or when ambient temperatures are below 4°C or expected to drop below 4°C within 12 hours following application.

Not recommended for application without the proper sprayer and correct spray tip. See Use Instructions for specific sprayer and tip size recommendations.

Not recommended for cure coat application prior to saw cutting crack control joints. Best results are obtained when Conlift Bondbreaker Waterbased cure coat is applied immediately after final finishing and joint saw cutting has been completed.

Not recommended for use in tilt-up application where casting slab or panel concrete mix design incorporates pozzolans such as fly ash without first contacting Parchem for specific recommendations regarding application procedures and rates. Failure to do so may result in panel surface blemishes and/or panel sticking.

USE INSTRUCTIONS

Request current product literature, labels and material safety data sheets from Parchem and read thoroughly before product use.

Site environmental conditions, substrate conditions and construction have a major effect on product selection, application methods, procedures and rates, appearance and performance. Product literature provides general

information applicable to some conditions. However, an adequate site test application by the purchaser or installer in advance of field scale use is mandatory (irrespective of any other verbal or written representations) to verify that product and quantities purchased can be satisfactorily applied and will achieve desired appearance and performance under intended use conditions.

Use the Parchem Drum Agitator or other suitable mechanical agitator to adequately mix product before withdrawing from container and before each use.

Apply using Parchem's SP35C Sprayer or Chapin Premium Sprayer. Recommended spray tip sizes are 8003-LP, 8004-LP and 8005-LP. The coarser (8005-LP) spray tip should be used on porous casting slab surfaces where additional bondbreaker is necessary to ensure sufficient film holdout. Use the less coarse (8003-LP) spray tip for application on less porous casting slab surfaces. The use of an improper sprayer and/or incorrect spray tip generally results in either over or under application.

Conlift Bondbreaker Waterbased should be applied in accordance with recommended procedures to achieve even and uniform coverage. Equipment should be clean and dry prior to use.

Typical drying time is 30 minutes to 3 hours, but varies with the presence or absence of a moisture barrier beneath the casting slab, climatic conditions and application rate. Extended drying times in excess of 24 hours are possible in cure coat applications when product is applied heavily during cool weather and a moisture barrier is present. Reducing the application rate and applying in multiple thin coats in lieu of one heavy coat will greatly reduce drying time.

Avoid scouring the casting slab surface during panel concrete placement by using a deflection board.

CURE COAT APPLICATION

Apply to the point of rejection and uniform surface film accumulation immediately after final finishing and joint saw cutting.

The typical application range is 5-10 m²/l but can vary widely depending upon the specific conditions such as concrete mix design, type of finish and ambient weather conditions. For example, concrete floors which are cast during cool and humid conditions require less Conlift Bondbreaker Waterbased to achieve optimum curing than do concrete floors cast during hot, dry and windy conditions.

Over application can result in delays due to slow drying. Under application can result in shrinkage cracking or crazing and excessively porous and weakened slab surfaces.

It is the contractor's responsibility to evaluate the various

conditions on each project and to determine the correct application rate of the Conlift Bondbreaker Waterbased cure coat. If unsure, contact Parchem for specific recommendations. When climatic conditions are excessively hot and/or windy during concrete placement or curing as defined by the American Concrete Institute's report ACI 305.

BONDBREAKER APPLICATION

Casting slab areas should be well cured, smooth and dense.

Remove all dust, dirt, saw cut residue, standing water and other contaminants prior to applying bondbreaker coats.

The number of bondbreaker coats and related application rate required to achieve complete, uniform coverage of casting slab varies with concrete mix design, placing and finishing procedures, weather conditions, etc. Because of this, it is not possible to prescribe application rates or procedures inclusive of all site variables.

Best results are obtained when successive coats of Conlift Bondbreaker Waterbased are applied at right angles (perpendicular) to each other.

An adequate application is indicated by the presence of a dry soap-like feel uniformly apparent to touch over the entire treated area with no indication of greater accumulations in low spots or depressions. Following bondbreaker application and immediately prior to panel concrete placement, be certain casting slab surfaces evidence the dry soap-like feel, but do not evidence over application of Conlift Bondbreaker Waterbased as indicated by a slippery or grease-like feel to the touch. Over application may result in retardation of panel skin or dusting, surface irregularities and/or discoloration as well as unreacted bondbreaker residue on panel and floor surfaces.

Typically, casting slab surfaces which are more porous resulting from such conditions as improper curing, the addition of pozzolans such as fly ash or which received a more open or less tight finish will require more Conlift Bondbreaker Waterbased than slab surfaces which are less porous.

It is the contractor's responsibility to evaluate the various conditions on each project and to determine the correct application rate of the Conlift Bondbreaker Waterbased bondbreaker coats. If unsure, contact Parchem for specific recommendations. Caution: the primary reason for panels sticking to casting slabs is an inadequate film of bondbreaker on the casting slab surface at the time of panel concrete placement. It is your responsibility to verify a continuous film of bondbreaker can be felt on the casting slab surface as previously described immediately prior to placement of panel concrete.

Rain occurring prior to product drying will necessitate reapplication of bondbreaker.

Do not apply to reinforcing steel or lifting inserts.

Conlift Bondbreaker Waterbased



Avoid spray drifts, runs or puddles. Promptly wipe up any material excesses which can lead to subsequent adhesive failure of floor coatings and wall paints.

When using Conlift Bondbreaker Waterbased for sand bed casting, contact Parchem for specific written recommendations.

CASTING SLABS CURED WITH CONLIFT BONDBREAKER WATERBASED

Apply successive coats of Conlift Bondbreaker Waterbased until the casting slab surface appears uniformly dark in appearance for **at least 2 - 3 hours** following the last coat. If the treated slab appears light in color either generally or in spots within 2 - 3 hours of last application, excessive slab porosity is indicated. Reapply Conlift Bondbreaker Waterbased to all light-colored areas. If areas of light color or dry appearance persist, thoroughly wet affected areas with water to fill concrete surface pores, squeegee off excess water and then immediately re-apply Conlift Bondbreaker Waterbased.

The typical effective coverage rate for all combined bondbreaker coats applied to new casting slabs previously cured with Conlift Bondbreaker Waterbased is 5-10 m²/l. The application rate can vary widely depending upon the specific conditions. Do not over or under apply.

EXISTING CASTING SLABS

Verify concrete surface is free of substances that could adversely affect product performance.

Apply successive coats of Conlift Bondbreaker Waterbased until the casting slab surface appears uniformly dark in appearance for at least 2 - 3 hours following the last coat. If the treated slab appears light in color either generally or in spots within 2 - 3 hours of last application, excessive slab porosity is indicated. Reapply Conlift Bondbreaker Waterbased to all light-colored areas. If areas of light color or dry appearance persist, thoroughly wet affected areas with water to fill concrete surface pores, squeegee off excess water and then immediately re-apply Conlift Bondbreaker Waterbased.

The typical effective coverage rate for all combined bondbreaker coats applied to an existing, clean and unsealed casting slab is 5 - 10 m²/l. The application rate can vary widely depending upon the specific conditions. Do not over or under apply.

CLEANING

To clean panel surfaces, pretreat the areas to be cleaned with a detergent solution consisting of 225 gm of trisodium phosphate in 3.8 L of water. Rinse the detergent solution off with water using a minimum 4,000 psi power washer.

Determine adequacy of the surface preparation of panels and casting slabs with appropriate site test to verify acceptable adhesion, appearance and performance of paints, coatings, adhesives, sealers, sealants, grouts, etc. prior to application.

PACKAGING

Product is packaged in lined steel 19 L pails, 208 L drums and 1,047 L bulk tanks. Drums are equipped with a 2-inch center port opening for use with Parchem's Drum Agitator.

SHELF LIFE

Shelf life is 12 months. Use before the "use by" date stated on product packaging.

IMPORTANT NOTICE

A Material Safety Data Sheet (MSDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the MSDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

PRODUCT DISCLAIMER

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.



PARCHEM	TILT UP		
TECHNICAL DATA SHEET	JANUARY 2010		
www.parchem.com.au	7 Lucca Road, Wyong NSW 2259	Phone 1300 737 787	ABN 80 069 961 968