rechnical data Clean Lift 20/20

Premium reactive water-based tilt-up Cure/Bondbreaker

DESCRIPTION

CLEAN LIFT 20/20 is a chemically reactive water based tiltup cure/bond breaker specially engineered to provide a clean, easy lift of tilt-up panels and meet the moisture retention of ASTM C309. **CLEAN LIFT 20/20** contains no diesel, kerosene, waxes or silicones.

- Easily identifiable on the casting bed
- Clean panels lift easier, no resin stains
- VOC Compliant < 350g/l
- Resists foot traffic abrasion

APPLICATION

<u>Mix Design:</u> The frequent use of Type 1L cement and pozzolans (flyash and slag) in casting beds and panel concrete typically slow the rate of hydration, and may delay or reduce bleed making the casting bed and panel concrete more susceptible to drying shrinkage and increase surface porosity at the time of the Clean Lift application. This increased porosity will require an additional cure coat or bondbreaker coat to achieve adequate hold-out prior to pouring panels.

The use of SpecChem "IntraFilm" as a finishing aid will help reduce porosity, and facilitate finishing for denser, tighter slabs.

Curing New Concrete:

Clean Lift 20/20 must be mixed or agitated before each use. Do not dilute. When used as a cure, **CLEAN LIFT 20/20** should be applied immediately after the final hard steel troweling at 250-350 sq ft per gal. after the surface water has disappeared. Waiting too long to apply the cure coat can result in porous, dry casting slabs that will not yield favorable results.

Bond Breaker Coat:

Casting slab must be well cured, smooth and dense. Remove all dust, dirt, and other contaminants prior to application. CLEAN LIFT 20/20 should be applied just prior to placing reinforcing steel and within two weeks of pouring panels. Spray apply @ 400 sq ft per gal or to the point of rejection. Wait until dry and then apply a second coat at right angles to the previous coat. Coverage rate of second coat is typically 500-700 sq ft per gal . Complete uniform coverage is necessary on casting slab. If treated slab appears uneven or has light colored spots, this may indicate a porous slab that requires additional applications of bondbreaker. If after additional applications, these light spots persist, thoroughly wet affected areas with water to fill concrete pores. Squeegee off excess water and then immediately reapply CLEAN LIFT 20/20. Allow bondbreaker to thoroughly dry. An adequate application is indicated only by the presence of a dry soap like feel apparent to the touch over the entire treated slab. Do not allow foot traffic until the slab is thoroughly dry.

Bond Breaker Coat on Old or Water Cured Concrete:

Verify that the concrete surface is free of curing compounds, salts or other substances that could adversely affect the performance of **CLEAN LIFT 20/20**. The slab must be smooth, dense, well cured and clean. Prior to placing reinforcing steel and within two weeks of pouring panels, flood casting slab surface with clean water.

APPLICATION (con't)

Squeegee off excess water and immediately apply **CLEAN LIFT 20/20** to the point of rejection. Wait until dry and then apply a second coat at right angles to the previous coat. Allow to thoroughly dry. As before, if light colored areas appear after drying, a porous slab may be indicated and reapplication will be necessary. The application rate can vary greatly depending upon the porosity of the slab and the ambient conditions. It is the contractors responsibility to ensure the even presence of CLEAN LIFT 20/20 at the surface of the casting slab prior to pouring concrete.

Before Pouring Concrete:

Ensure that the entire treated surface has a dry soap/wax like feel to the touch. Test casting slab by sprinkling a few drops of water in several places. The water should not penetrate and may bead like on a newly waxed car. Fog the entire slab with water prior to pouring. When pouring concrete, avoid scouring the casting slab surface by using a deflection board. Heavy rains or rains prior to bond breaker coats drying may necessitate reapplication.

Stack Panels/Waste slabs:

Extra care must be used with stack panels and waste slabs as they tend to be more porous and can transfer water across their interface increasing the possibility of the "osmotic effect" thus leading to sticking. It is recommended that a SpecChem Cure & Seal or a double coat of cure/bond breaker be applied as the cure coat prior to the bond breaker coat to lessen the chance of sticking.

Please contact SpecChem technical service for special instructions on Casting Slabs or Stack Panels and when using concrete mixes containing pozzolans (slag, fly ash).

Painting of Panels:

If **CLEAN LIFT 20/20** has been properly applied and has not been over applied, painting of the panels can be performed as soon as the moisture content in the concrete is at an acceptable level for the paint manufacturer. Coating manufacturer's instructions for proper surface preparation must be followed and supersedes information in this data sheet.

Other Instructions:

Do not apply in rain or if rain is forecast within 12 hours of application. Panels exposed to rain may require reapplication @ 500-700 sq-ft per gal. Not recommended for use as a bond breaker on broom or rough finished concrete. Spray apply for best results with a power sprayer or low pressure sprayer (Chapin, Hudson, etc) with a 1/2 gal/min tip in a fine uniform spray pattern. Always ensure the complete presence of bond breaker prior to pouring panels.



Hot Weather Tips for Tilt-Up

Hot weather can cause premature drying of the concrete casting slab surface, causing it to be overly-porous, exhibit cracking and crazing and have reduced surface strength. The use of **SpecFilm** as an evaporation retardant, can greatly reducing the possibility of plastic shrinkage cracking, crazing, and uneven/wavy surfaces.

One of the best ways to offset the effects of hot weather is with modified curing and bond breaker application techniques. SpecChem makes the following recommendations when using **Clean Lift 20/20** Cure and Bond Breaker:

1) Apply the **Clean Lift 20/20** cure coat <u>immediately</u> after final finishing and preferably prior to control joint cutting. Apply to the point of uniform surface film accumulation. Slabs with exceptionally porous surfaces or rougher finishes may require heavier applications to ensure adequate holdout and uniform surface accumulation. The cure application is the most critical to assure an adequate base for the subsequent bond breaker coats. In hot weather, the proper timing and application rate are essential and the cure coat should be applied at a minimum 250-300 sq-ft per gal.

2) Immediately before application of the Clean Lift 20/20 bond breaker coats, saturate the casting slab surface with water, thoroughly removing the excess water with a squeegee or compressed air. This practice is especially recommended if the slab was improperly cured, the application of the cure coat was delayed or if the slab is suspected of being porous. This step cools the casting slab and allows the water to "take up" any remaining porosity just before the bond breaker coats are applied.

3) Apply successive **Clean Lift 20/20** bond breaker coats until the casting slab surface appears uniformly dark for a minimum of 2-4 hours and has a dry, soapy feel in all areas. Do not allow **Clean Lift 20/20** to accumulate in low spots or depressions.

Panel Concrete Placement

Very porous casting slabs can cause the "osmotic effect" to occur, even when adequate bond breaker has been applied. In simple terms, the "osmotic effect" refers to the natural tendency of water to migrate from wet to dry. This means that when fresh panel concrete is placed on a hot porous casting slab, water will migrate from the fresh concrete into the dry casting slab, leaving the wall panel surface concrete without adequate water for proper hydration. This can result in dusting or skin pull off on the panel surfaces.

To minimize the osmotic effect, **immediately** prior to placement of the panel concrete, saturate the casting slab with water, and then <u>thoroughly squeegee off or blow off the excess water</u> with compressed air. No surface water should be present on the casting bed surface prior to panel concrete placement.

CLEANING

Tools, sprayers and other equipment may be cleaned with water prior to the bond breaker drying. Use **Spec-Chem Berry Clean** in OTC, SCAQMD, and LADCO VOC regulated areas, or **SpecChem Orange Peel** to clean off the dried bond breaker. With proper application, the casting slab and panels may not require cleaning but may be washed with a mild alkaline detergent to remove any over application.

SHELF LIFE

Do not allow to freeze! Store material in the original tightly closed containers. Do not allow the accumulation of water, dirt or other contaminants. Store CLEAN LIFT 20/20 between 45-85 degrees F. Prolonged exposure to high temperatures (above 90 degrees) can significantly reduce shelf-life. Properly stored, shelf-life is 1 year from the date of manufacturer.

PACKAGING

CLEAN LIFT 20/20 is packaged in 55 gal drums and 5 gal

LIMITATIONS

DO NOT ALLOW TO FREEZE. Avoid over applications. CLEAN LIFT 20/20 must be completely dry prior to pouring concrete. Do not walk on bond breaker until completely dry. For best performance, flood the pour area with water immediately before pouring concrete. Do not apply below freezing (32 F).

Important: If the concrete is cured <u>without</u> using a Spec-Chem cure/bond breaker or <u>without</u> a SpecChem ASTM C 309 curing compound, please contact a SpecChem representative for technical support.

DO NOT EXPOSE TO OR APPLY NEAR FIRE OR FLAMES. FOR WELL VENTILATED OR EXTERIOR USE ONLY!

PRECAUTIONS

DO NOT CUT OR WELD CONTAINER KEEP AWAY FROM OPEN FLAME INDUSTRIAL USE ONLY

Additional precautions, safety information and first aid are contained in the Safety Data Sheet.

WARRANTY

NOTICE-READ CAREFULLY CONDITIONS OF SALE

SpecChem offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SpecChem. No other representative of or for SpecChem is authorized to grant any warranty or to waive limitation of liability set forth below.

WARRANTY LIMITATION

SpecChem 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, SpecChem will replace the defective product with new product without charge to the purchaser. SpecChem makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.

INHERIT RISK

Purchaser assumes all risk associated with the use or application of the product.



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