Nexus Sure-Lift - J6D Technical Data Sheet

Nexus CONSTRUCTION SYSTEMS

Product Description

Sure-Lift (J-6) is a reactive and membrane forming premium bond breaker for tilt-up construction. Sure-Lift is a special formula of polymers and propriety ingredients designed to provide clean easy lifting of tilt panels. J-6 has a fugitive dye for ease of visual inspection during application.

Use

J-6 is designed to allow for easy lifting of tilt wall panels from a properly designed, finished and cured concrete casting beds.

Benefits

- Chemically Reactive
- Good resistance to rain and weather
- Panels lift cleanly
- Minimal panel residue
- Resists construction foot traffic

NOTE:

Prior to application, read and 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 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 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.

Spray Equipment

The (J-6) Bondbreaker must be applied by a high quality "low-pressure pump-up type sprayer" such as manufactured by 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 (J-6) without streaming, tailing, or spitting. A 1.9 litre/minute tip is generally recommended for most applications. The use of an improper sprayer, a dirty sprayer, lower than adequate pressures or wrong tip can result in an uneven application, and either over or under application.

First Bondbreaker Coat

The casting bed should be free of all foreign material, salts, laitance and the (J-6) protected, while drying, from all contaminants or particulate matter (i.e., dust, dirt, etc.). Just prior to placing the reinforcing steel, and within two weeks of pouring the panels, spray apply the first bondbreaker application of (J-6) at 9.8m2/L to the point of rejection. 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 and humidity, and apply a second coat right angles to the previous coat. Coverage for the second coat will typically be 13.5-17.2 m2/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 (J-6) 13.5-17.2 m2/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 dependent 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 dependent 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.

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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 (J-6). 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 (J-6). 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 braded or scoured spots or areas may result in stuck panels. Discharge the concrete into previously placed fresh concrete.

Drying Time

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

Clean Up

Tools and Equipment Use: Mineral Spirits, Naphtha, Xylol

Estimated Coverage

First Coat	9.8 m2/l
Second Coat	13.5 – 17.2 m2/l

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

208 L drums and 20 L pails.

Storage

The (J-6) should be stored in a tightly secured original factory container. Store in the horizontal position to prevent moisture accumulation on the drum head. Keep from freezing.

Limitations

Avoid contamination by storing containers in clean, dry area and keeping lids tightly sealed. The shelf life of (J6) is 12 months when properly stored. Do not spray on reinforcing steel.

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

Not recommended when concrete mix designs using fly ash or other pozzolanic 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.

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 at 13.5-17.2 m2/l.

Do not apply below 4°C or when ambient temperatures are expected to fall below 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 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.

Over application can lead to excessive transfer to the panels and potentially cause problems with subsequent paint adhesion. A mock up test panel and casting surface of any subsequent application of paint, coatings, sealers, hardeners 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

Harmful if swallowed. DO NOT induce vomiting. If conscious, wash out mouth with water. If swallowed contact a doctor or the Poisons Information Centre immediately (Australia 13 1126; New Zealand 03 4747000) and show container, label or SDS.
Avoid contact with skin or eyes, wear protective clothing.
If eye contact occurs, hold eyelids apart and flush the eye continuously with running water, continue flushing until advised to stop by the Poisons Information Centre or a doctor or for at least 15 minutes.

See Safety Data Sheet for more detailed information.

TECHNICAL SERVICES:

Call the technical staff for assistance at:

03 9988 7701

WARRANTY

Nexus Construction Systems ("Nexus") 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 Nexus, the product is free of manufacturing defects and conforms to Nexus's product properties in force on the date of acceptance by Nexus of the order. Nexus shall only be liable under this warranty if the product has been applied, used, and stored in accordance with Nexus's instructions, especially surface preparation and installation, in force on the date of acceptance by Nexus of the order. The purchaser must examine the product when received and promptly notify Nexus in writing of any non-conformity before the product is used and no later than 30 days after such non-conformity is first discovered. If Nexus, 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 Nexus officer is authorized to modify this warranty. The information in this data sheet supersedes all other sales information received by the customer during the sales process. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITYAND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES OTHERWSE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.

LIMITATION OF LIABILITY

Nexus shall not be liable in contractor 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 realise expected savings; frustration of economic or business expectations; claims by third parties, 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, its obligations under any contract for sale of product, even if Nexus 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 contract, 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.