



## STARSEAL® EF 1500 CW RELEASE

### COLD WEATHER FORM TREATMENT • ECO-FRIENDLY

#### DESCRIPTION

**STARSEAL EF 1500 CW RELEASE** is a non-staining, clear, water based form release for cold weather forming. The product can be used at below freezing temperatures and will not freeze at temperatures as low as at 10° F (-12° C). StarSeal EF 1500 CW Release provides exceptional release properties yielding a smooth uniform concrete finish. The product contains technologically advanced additives which provide exceptional bonding characteristics to many form types including galvanized steel. When dry, the product is not slippery making it the product of choice for concrete placement in horizontal shoring applications.

Ideal for use in environmentally sensitive areas, as well as a maintenance treatment to prevent concrete build up on construction equipment. The product is an economical alternative to oil based form releases.

StarSeal EF 1500 CW Release does not contain any oils or waxes, therefore it will not stain concrete and can be top-coated without concern for compatibility. When properly applied, the product forms a film on the surface that covers 100% of the exposed form area. 100% coverage is the Vexcon Forming Advantage by providing uniform release that avoids heavy build up and untreated areas.

StarSeal EF 1500 CW Release will not crater, bead, run, or sag on vertical application. This reduction in heavy build up reduces form preparation between uses increasing the forms useful life and decreases labor and maintenance costs. The product also includes a special rust inhibitor to minimize rust formation on steel forms. No surface preparation is required for subsequent coatings or treatments of concrete formed with StarSeal EF 1500 CW Release.

#### BENEFITS

- Use at temperatures as low as 10° F (-12° C) without freezing
- Unsurpassed bonding characteristics
- Exceptional anti stick/release properties
- Ensures easy stripping of forms
- Will not stain or discolor concrete
- Reduces surface air voids (bug holes)
- Not slippery
- Quick drying
- Prevents concrete build up on construction equipment
- Will not deteriorate or damage surface
- Increases form useful life
- Decrease labor and maintenance costs
- Reduces form concrete build up
- Reduces surface preparation and painting costs
- Effective for up to three weeks before concrete is poured
- Rain will not wash off dried product
- Minimizes rust formation

#### USE ON THESE TYPES OF FORM FACE MATERIALS

- Aluminum
- B-B Plywood
- Fin-Form Plywood
- High Density Overlay (HDO) Plywood
- Medium Density Overlay (MDO) Plywood
- Form Liners
  - Elastomeric/ Urethane
  - Fiberglass
  - Plastic
    - High Impact Polystyrene (HIPS)
    - Rigid Polymer ABS (Acrylonitrile & Butadiene)
- Plastic
- Steel
- Galvanized Steel

#### STARSEAL EF

**StarSeal EF** products are high performance building materials that are dedicated to reducing their environmental foot print by improving the environmental performance of buildings, the air quality for inhabitants, and reducing the effects of volatile organic compounds (VOCs) on the environment.

#### ECO-FRIENDLY ATTRIBUTES

- Low odor
- Low VOC
- Safe to use
- Safe to store
- Packaged in recyclable containers

#### RECOMMENDED FOR

- Architectural concrete
- Foundations
- Environmentally sensitive areas
- Tunnel, bridges, waste and water treatment facilities
- Pre-cast, pre-stressed concrete
- Maritime construction
- Tidal zones
- General forming applications

#### SPECIFICATIONS/COMPLIANCE

- VOC: <250 grams/liter or <2.09 #/gal
- Meets all clean air standards throughout the US:
  - US EPA AIM - Form Release Compound
  - OTC - Form Release Compound
  - LADCO/MRPO - Form Release Compound
  - Canada - Form Release Compound
  - CARB - Form Release Compound
  - SCAQMD - Rule 1113 – Form Release Compounds
- Meets or exceeds the requirements of the Corps of Engineers, Civil Works Construction Guide, CW-0301, section 2.1.2. and 3.1.3.
- Bureau of Reclamation Standards
- State Specifications for non-staining form release
- Ohio EPA contact with potable water
- CSI reference: 03 11 00 – Concrete Forming

## APPLICATION

- Forms and other surfaces that are to be made bond-free should be cleaned before applying StarSeal EF 1500 CW Release.
- Remove build up of concrete, rust, scale, and dirt with **Certi-Vex® Concrete Remover** and repair any holes or fractures from previous uses before applying.
- StarSeal EF 1500 CW Release is ready to use direct from its container, do not dilute.
- Apply by brush, roller, spray or dipping on forms immediately before pouring concrete. However, because StarSeal EF 1500 CW Release or any other form release agent must be kept off reinforcing steel and any other embedments; spray application must be done with care when forms and steel are already in place. An alternative is to coat forms with StarSeal EF 1500 CW Release just prior to erection of rebar steel.
- Coat Uniformly - Leave no gaps.
- Avoid over application and remove excess material.
- Allow to dry.

## SPECIAL NOTES

- Residual concrete dust can be wiped off with a rag or water washed to a clean surface.
- Do not use as a bond breaker for concrete on concrete.
- Water base release agents are not visible on applied surfaces once dry. This is normal and does not affect release agent performance. Upon request, product is available with a dissipating dye to aid in application.
- Manufacturers of coatings or treatments should be consulted for special application requirements of their product.
- StarSeal EF 1500 CW Release can be effective for up to three weeks before concrete is poured.
- It is also recommended that forms be treated with StarSeal EF 1500 CW Release between each pour and before long periods of idleness or storage.
- Do not apply form release treatment when surface temperatures are below 10°F (-12°C).
- Protect treated forms from rain for 24 hours after application.
- Forms must be allowed to dry for 24 hours after a rain before application.
- StarSeal EF 1500 CW Release must be allowed to dry on the forms prior to pouring concrete.
- Mix well before each use.
- Do not apply on windy days.
- For use by experienced contractors.
- Shelf Life: If properly stored in its original sealed container, one year from date of manufacture. Rotate your stock.
- Storage/ Handling: Store in tightly sealed original factory container. Keep from freezing and exposure to moisture. Store at room temperature prior to use. Special care should be taken to keep dirt, water and contaminants away from the opening of containers.
- Proper application of Vexcon material is the responsibility of the installer or user. Telephone consultation and/or field visits by Vexcon personnel are for the sole purpose of making technical recommendations only, and not for providing quality control or supervision on location.

## SHORT SPECIFICATION

03 11 16: Low VOC (<250 grams/Liter) Concrete Forming and Accessories. Cold Weather form release agent with rust inhibitor that will not freeze, bond with, stain, rust or adversely affect concrete surfaces at below freezing temperatures, will not impair subsequent treatments of concrete surfaces. Environmentally safe, meeting local, state and federal regulations and can be used in potable water facilities. Manufactured by Vexcon Chemicals.

## CLEANING OF USED FORMS

Instructions for transitioning from oil treated used forms to StarSeal EF 1500 CW Release.

- All forms types, metal and wood, should be power washed.
- Used plywood form faces should be power washed and cleaned with **Certi-Vex Super Degreaser & Cleaner**.
- Power wash off cleaner and allow to dry.
- Apply release as instructed.
- Notes: To aid in performance of used plywood forms after proper cleaning it is recommended that an application of StarSeal EF 1500 CW Release be applied and allowed to dry.

## PACKAGING

StarSeal EF 1500 CW Release is available in 55-gallon drums, 5-gallon pails, and 275-gallon totes. Contact Vexcon directly to discuss your customized packaging requirements.

## COVERAGE

Typical application rate is 500-1000 sq.ft./gal (12.5-25 m<sup>2</sup>/L) depending on porosity, texture, and form material. Conduct a test application to verify the proper application rate for your use.

## PHYSICAL PROPERTIES

- |               |                                    |
|---------------|------------------------------------|
| • Color       | Clear amber solution               |
| • Wt/gal      | 8.5                                |
| • Acid number | None                               |
| • Carrier     | Water with freeze point depressant |

## VITAL STATISTICS

- |                     |                 |
|---------------------|-----------------|
| • Flash Point       | >280°F (>137°C) |
| • Boiling Point     | 230°F (110°C)   |
| • Autoignition Temp | 748°F (398°C)   |

## HEALTH AND SAFETY

- Use only with adequate ventilation.
- If swallowed, do not induce vomiting.
- Use of gloves, goggles, and other protective clothing is advised when using this product.

Vexcon MSDS FR116 is an integral part of the safety and application of our product. A short synopsis is provided in this product data sheet. Before using this Vexcon product, it is advisable to obtain a copy of MSDS from your distributor or by contacting Vexcon Chemicals.

## CONTACT US @

Additional product information, technical assistance, and customer services are available by contacting Vexcon Chemicals or our distributors.

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## WARRANTY

Vexcon warrants that the goods supplied hereunder shall be of its standard quality and shall conform in all material respects to the sample which has been made available for testing by buyer prior to sale. As the EXCLUSIVE REMEDY for any breach of this Limited Warranty, Vexcon shall replace nonconforming goods or refund the purchase price. Since methods of use and application are beyond Vexcon's control, this Limited Warranty is IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS LIMITED WARRANTY IS ALSO IN LIEU OF ANY OTHER POSSIBLE LIABILITIES OF VEXCON, WHETHER ALLEGED TO ARISE BY AGREEMENT OR BY OPERATION OF LAW, RESPECTING THE SALE, APPLICATION, USE OR FUNCTION OF VEXCON'S PRODUCTS, INCLUDING BUT NOT LIMITED TO CLAIMS OR NEGLIGENCE, GROSS NEGLIGENCE, STRICT LIABILITY OR ANY OTHER TORT. IN NO EVENT SHALL VEXCON BE LIABLE FOR PERSONAL INJURY OR PROPERTY DAMAGE, REAL OR PERSONAL, ATTRIBUTED TO ITS PRODUCTS, NOR FOR ANY EXCAVATION, REMOVAL, REAPPLICATION, DOWN TIMES, CLEANUP, LOSS OF USE, LOSS OF OPPORTUNITY, LOSS OF MARKET VALUE, LOSS OF RENTAL VALUE OR FOR ANY LOSS OF PROFITS OR OTHER SPECIAL, INCIDENTAL, RESULTING, CONSEQUENTIAL OR EXEMPLARY DAMAGES. No person is authorized by Vexcon to assume for it any other liability of any kind in connection with the sale or use of products manufactured and sold by it, and there are no oral agreements or warranties collateral to or affecting any sale or use. All of the foregoing arises under the substantive law of Pennsylvania without regard to principles of conflicts of laws.