

# TECHNICAL DATA & PRODUCT DESCRIPTION

PAGE 1

## SECTION 1: PRODUCT NAME

### DEEP SEAL with RUST GUARD



## SECTION 2: MANUFACTURED BY

### ACON PRODUCTS

www.aconproducts.com

Braselton, Ga. 30517  
706-658-2727 office  
770-380-6594 cell  
706-824-0031 fax



## SECTION 3: PRODUCT DESCRIPTION

**DEEP SEAL with RUST GUARD**, a water-clear, odorless, non-petroleum, colloidal liquid which is environmentally neutral, contains zero VOC/VOS, and is user friendly.

## SECTION 4: BASIC USE

**DEEP SEAL with RUST GUARD** penetrates / permeates Portland cement concrete very readily when applied to its surface penetrating to extraordinary depths, depending on concrete permeability factor etc. **DEEP SEAL with RUST GUARD** effectively attacks existent conditions that can create and/or promote corrosion activity, if any, arresting / preventing, or at the very least significantly retarding, rust producing reactions. In order for corrosion to exist, the observed facts are, water (H<sub>2</sub>O) and molecular oxygen (O<sub>2</sub>) are essential ingredients; The presence of the H<sup>+</sup> (aqueous hydrogen) ion speeds up reactions, plus the presence of some metals retard or hinder corrosion while other type of metals accelerate it. Theories about why corrosion occurs vary; however, the most promising mechanism suggested is a many-step process in which the following sequence of events occur: (1) The steel (iron) acts as an anode (electrode at which oxidation occurs) to give up two electrons (particles which carry one unit of electrical charge) leaving two protons in the iron without their electron counterparts creating Fe<sup>+2</sup> (ferrous) ion; (2) The errant electrons are picked up by an H<sup>+</sup> ion to form transient neutral H (hydrogen) atoms; (3) The H atoms are immediately oxidized by O<sub>2</sub> to form H<sub>2</sub>O; (4) The Fe<sup>+2</sup> ion is oxidized by O<sub>2</sub> in the presence of H<sub>2</sub>O to form rust. Rust is not a simple compound, as its name implies, but seems to be an indefinite hydrate of Fe<sub>2</sub>O<sub>3</sub>. Acids catalyze rust formation because they provide an H<sup>+</sup> ion to accept electrons from the iron, causing it to dissolve faster. Oxygen gas is

necessary to oxidize Fe<sup>+2</sup> to Fe<sub>2</sub>O<sub>3</sub>, which would be non-corrosive without the presence of an electrolyte. The presence of water (electrolyte) facilitates migration of Fe<sup>+2</sup> from the reaction site, and reduction of Fe<sup>+2</sup> concentration permits rusting (corroding) to resume / exist. Subsequently, one of the easiest ways to prevent rusting (corrosion) of the iron is to shut out the O<sub>2</sub> / H<sub>2</sub>O supply.

**DEEP SEAL with RUST GUARD** performs its objectives by doing this, plus neutralization of acids where applicable, end by deaeration of corrosion product (rust) where applicable, and along with permanent conversion of steel oxide coating to Fe<sub>2</sub>O<sub>3</sub>, with removal of electrolyte presence, whether steel has begun to corrode or not. In addition, as a preventive, in installations not yet experiencing corrosion problems, **DEEP SEAL with RUST GUARD** has ability to reduce the chloride ion content, present in concrete accessible porosity.

Furthermore, internally generated **DEEP SEAL with RUST GUARD** precipitate which is permanently deposited in **DEEP SEAL with RUST GUARD** paths of reticulation, while penetrating concrete to its imbedded steel, permanently deprives the treated concrete of the very necessary ingredient of corrosion electrolyte. **DEEP SEAL with RUST GUARD** will not alter concrete surface appearance or physical characteristics, nor does it impair surface traction or bonding quality. Concrete only needs to be closed while treating, and can be reopened immediately afterward.

**Limitations:** **DEEP SEAL with RUST GUARD** contacting glass should be rinsed off without being allowed to dry, since glass can become etched. **DEEP SEAL with RUST GUARD** may dull the shine on shiny aluminum; however, its integrity is otherwise unaffected. Do not apply **DEEP SEAL with RUST GUARD** to frozen concrete or when ambient temperature is at 35°F and expected to drop shortly.

## SECTION 5: INSTALLATION SUGGESTIONS

Apply using medium to high-pressure airless paint spray unit, with fan spray tip. Apply **DEEP SEAL with RUST GUARD** to point of saturation twice, in back-to-back applications. For example, apply **DEEP SEAL with RUST GUARD** by visually establishing start and finish points, then prior to relocating spray equipment to next area of application, apply **DEEP SEAL with RUST GUARD** to same area again, using the established start and finish points. To estimate volume of **DEEP SEAL with RUST GUARD** needed, prior to job commencement, use 100 square feet per gallon, for estimation purposes, since it is usually a close estimate; however, actual **DEEP SEAL with RUST GUARD** volume used may vary, depending on concrete permeability factor, etc. Damp or wet concrete may be treated by removing all water puddles, if any.

**DEEP SEAL with RUST GUARD** application should begin at lowest point in elevation. For example, walls or steep slopes should be applied from bottom up, overlapping spray patterns approximately 20 to 30%. Only normal, or usual maintenance is required following **DEEP SEAL with RUST GUARD** application.

## SECTION 6: PRECAUTIONS

1. Any coatings that may restrict access to the concrete interior must be chemically or mechanically removed for **DEEP SEAL with RUST GUARD** to penetrate.
2. Protect areas not intended for coverage.
3. Do Not allow to **DEEP SEAL with RUST GUARD** puddle or buildup.
4. **DEEP SEAL with RUST GUARD** may etch glass or dull shiny aluminum and can be difficult to remove from other surfaces once it dries.
5. Do not apply on frozen substrate or when temperature is near freezing.
6. **DEEP SEAL with RUST GUARD** spray mist is not hazardous to breathe. However, we do recommend the use of a face mask during application. Refer to MSDS.
7. For more information read Material Safety Data Sheet or contact your customer representative.