## PRODUCT DATA

### STAGE 1

Non-film forming, colloidal silica-based evaporation reducer and concrete finishing aid.

# NOT REGULATED BY FEDERAL OR STATE EPA ARCHITECTURAL COATINGS RULE FOR VOLATILE ORGANIC COMPOUNDS STAGE 1 STAGE 1

#### **HOW IT WORKS**

Applied during the floating and troweling process, STAGE 1 combines with calcium hydroxide to form calcium silicate hydrate gels that fill surface pores and capillaries to reduce moisture loss, increase concrete fluidity and extend workability giving finishers up to an additional 45 minutes of extra finishing time.

#### **APPLICATIONS**

- Use on all concrete flatwork whenever the surface evaporation rate exceeds the concrete bleed rate, such as in direct sunlight, during periods of low humidity or during hot and/or windy conditions.
- Due to reduced bleed water and greater tendency for surface crusting, STAGE 1 is particularly well suited for controlling surface water evaporation and extending the working time of type 1L cement containing concrete mix designs.
- Use on all concrete floor slabs and decorative concrete surfaces to increase workability and to minimize the potential for crack crazing, dusting, curling and efflorescence.
- Use on all concrete flatwork to increase the surface compressive strength and abrasion resistance and to lower the moisture vapor emission rate (MVER) and permeability.
- Use as a integral system component with all Nox-Crete curing, tilt-up, flooring and decorative products.

#### **ADVANTAGES**

- Extends the working time of fresh concrete up to 100% (double) compared to untreated concrete.
- Significantly increases the workability of all concrete flatwork during adverse conditions such as wind, sun, high temperatures and/or during periods of low humidity.
- Contains a chemically reactive colloidal silica that densifies concrete by reacting with calcium hydroxide and filling surface pores and capillaries with calcium silicate hydrate gels.
- In addition to colloidal silica, other additives in Stage 1 help to reduce surface bleed water evaporation and to lubricate the concrete surface increasing the working time and making the concrete easier to finish.
- Promotes proper concrete surface hydration for maximum strength properties.
- Increases concrete surface compressive strength and abrasion resistance.
- Reduces concrete moisture vapor emission rate (MVER).

- Reduces concrete surface efflorescence (whiting).
- Reduces concrete surface crazing.
- Produces a denser, thicker and stronger cap on all troweled floors.
- Green Engineered® better for health and the environment.
- Compatible with all Nox-Crete curing, tilt-up, flooring and decorative products.
- Meets all federal and state VOC requirements.

#### **A PRECAUTIONS**

- STAGE 1 does not form a membrane and is not for use in place of a membrane forming curing compound.
- Not for use as a concrete sealer or stain protectant.
- Do not apply to concrete if ambient air or concrete temperature during concrete placement is less than 45° F (7° C).
- Protect from freezing. Allowing product to freeze can cause the container to rupture as well as separation of the active components, resulting in poor product performance. 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.
- STAGE 1 is designed to be floated or troweled into the concrete immediately after application. Do not allow STAGE 1 to dry or to puddle or pond on the surface.
- Best results are obtained if STAGE 1 is applied in multiple coats and each coat is thoroughly worked into the concrete surface before additional coats are applied.
- Do not exceed 200 sf/gal (4.9 sm/L) in total coverage (all coats combined).

#### **USE INSTRUCTIONS**

- Request current product literature, labels and safety data sheets from manufacturer and read thoroughly before product use.
- Site environmental conditions, substrate conditions and construction have a major impact 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.

- STAGE 1 MUST BE THOROUGHLY MIXED PRIOR TO EACH USE. When using 55-gallon (208 L) drums or 275-gallon (1,040 L) totes, best results are obtained if the product is mixed using Nox-Crete's DRUM or TOTE AGITATOR, or other suitable agitators. STAGE 1 is ready to use and requires no dilution.
- For smaller areas, apply using a low-pressure handpump, tank-type sprayer equipped with 0.5 or 1.0 GPM spray nozzles.
- For larger floors, STAGE 1 can be applied during floating and finishing with power trowels equipped with on-board spray systems and 0.5 or 1.0 GPM spray nozzles.
- For maximum performance, apply first application of STAGE 1 just prior to first pass with bull float or during initial floating with power trowel.
- The typical application rate for STAGE 1 is 250-500 sf/gal (6-12 sm/L) per coat. The application rate can vary widely depending upon the specific conditions.

#### **TECHNICAL DATA**

Density	8.54 lbs. / gal. (1.02 kg / L)
Color	White
Odor	None
Flash Point	>200° F
Water Soluble	Yes
VOC	<5 g / L
VOC Classification	Not Regulated

#### **PACKAGING**

Product is packaged in 1 gal (3.8 L) jugs, 5 gal (19 L) pails, 20 liter pails, 55 gal (208 L) or 200 liter drums, 275 gal (1,040 L) and 1,000 liter totes.

#### SHELF LIFE

Shelf life is two years. Use before the "USE BY" date stated on product packaging.

#### HANDLING/STORAGE

Store in a dry location within a temperature range between  $40^{\circ}$  F ( $4^{\circ}$  C) and  $100^{\circ}$  F ( $38^{\circ}$  C).

#### **AVAILABILITY & TECHNICAL SERVICES**

In addition to corporate offices in Omaha, Nebraska, NOX-CRETE INC. maintains regional offices and distribution centers in principal markets throughout the world. For source or technical information, call 800-669-2738 or 402-341-2080.

#### LIMITED WARRANTY

#### NOTICE-READ CAREFULLY

#### CONDITIONS OF SALE

NOX-CRETE offers this product for sale subject to, and Buyer and all users are deemed to have accepted the following conditions of sale and limited warranty which may only be varied by written agreement of a duly authorized corporate officer of NOX-CRETE. No other representative of or for NOX-CRETE is authorized to grant any warranty or to waive limitation of liability set forth below.

#### WARRANTY LIMITATION

NOX-CRETE 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, NOX-CRETE will replace the defective product with new product without charge to the purchaser.

NOX-CRETE makes NO OTHER WARRANTY, either express or implied, concerning this product. There is NO WARRANTY OF MERCHANTABILITY. In no case shall NOX-CRETE be liable for special, indirect or consequential damages resulting from the use or handling of the product and no claim of any kind shall be greater in amount than the purchase price of the product in respect of which damages are claimed.

#### INHERENT RISKS

NOX-CRETE MAKES NO WARRANTY WITH RESPECT TO THE PERFORMANCE OF THE PRODUCT AFTER IT IS APPLIED BY THE PURCHASER, AND PURCHASER ASSUMES ALL RISKS ASSOCIATED WITH THE USE OR APPLICATION OF THE PRODUCT.



chemical solutions to concrete problems

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