## *LIFETIMECRETE*

# TECHNICAL DATA SHEET (Seal100)

### "Penetrates to extraordinary depths, providing permanent waterproofing & lifetime durability"

## <u>Seal100</u>

- Spray-applied to already-set hardened new or old portland cement concrete.
- Penetrates to extraordinary depths, and forms a permanent non-soluble, colloidal gel that will last the lifetime of concrete.
- Integrally waterproofs, densifies and preserves concrete during its useful lifespan and preventing further contamination.
- Increase surface abrasion resistance and acid/chemical resistance.

### PRODUCT DESCRIPTION

 Seal100 is a cloudy white (dries clear), odorless, environmentally safe (neutral), zero VOC/VOS penetrant in a colloidal liquid base.

### BASE USE

- 1. <u>Seal100 as a sealer</u>
  - When applied to already-set portland cement concrete, Seal100 integrally seals, waterproofs, densifies, and preserves, attributes beneficial to concrete of any age, at any point during its useful lifespan.
     Seal100 provides concrete an effective chloride ion barrier preserving its imbedded steel while removing potential for hostile contaminant ingress and significantly reducing vapor transmission rate effectively also preserving treated concrete's integrity. A Seal100 treatment further increases surface abrasion resistance, and surface acid/chemical

damage resistance.

- Penetrates extraordinarily deep into concrete, and react with interior ingredients, free alkali or unusual calcium hydroxide residue, etc. These reactions prolifically convert Seal100 usually low solids colloidal liquid to a 100% solids especially-formulated very insoluble precipitate, instantly providing additional density by becoming an integral part of concrete, occupying its accessible porosity and other tiny voids, forming a breathable barrier which begins in concrete's transitional porosity, located beneath its large surface porosity and its small microporosity, and deeper.
- The uniquely-induced barrier generates no heat during its liquid to solids conversion, nor expansion pressures at any time.
- The internally-generated pollutant barrier remains resilient and consists of pore sizes that are much smaller than concrete micropores, significantly diminishing void percentages thus permeability, allowing concrete to retain ability to breathe, expand, and contract as it needs to.

### 2. <u>Seal100 as a cure</u>

- Seal100 is excellent as an alternative concrete curing method, providing a cure equal to, or better than water curing.
- Provides usual benefits of curing agent, and provides special ingredients to the yetavailable capillary mix water, waiting to participate in hydration reaction process in plastic or semi plastic concrete.

#### Technical Data Sheet: Seal100

#### LIFETIMECRETE

- Generates increased volume of cement paste or hydration products in a much shorter time and utilizes all of the remaining capillary water and leaving none to later evaporate and leave void spaces.
- Seal100 provides concrete a superior cure imparting extraordinary strength surface hardness and impermeability, subsequently to get much improved durability.
- Provides concrete formulated permanent subsurface precipitate barrier containing smaller pore sizes than concrete's micropores that even further diminishing porosity and permeability effectively forcing gases such as radon to seek other avenues of escape, instead of passing thru the concrete, where applicable.
- Does not leave a surface residue to interfere with surface bonding quality.
- Produces concrete more waterproof, abrasion resistant, freeze damage resistant, dust resistant, acid/chemical resistant, etc.

# PRIMARY APPLICATIONS

 Seal100is ideal for use on all concrete structures, streets, highway. i.e. building, basement, floor, tunnel, bridges, parking structure, airport pavements, dams, driveways, highway, wall, docks, pier, storage tanks, etc. to preserve and extend performance criteria, as well as useful lifespan.

# FEATURES AND BENEFITS

- Permanently integrally waterproofs concrete.
- Densifies, strengthens, and internally detoxifies concrete.

- Excellent coating or topping primer.
- Provides internal humidity stability.
- Increases surface abrasion resistance, acid/chemical resistance.
- Improve thermal resistance, surface bond quality, dusting resistance, past carbonation effects.
- Zero VOC or VOS content
- Easy ice removal and cleaning
- Lowers internal chemical reaction potential, creep deformation potential, and electrostatic discharge potential.
- Concrete's best durability.
- Seal100 can help any concrete.

# DIRECTIONS FOR USE

- <u>On existing concrete</u> Note: In hot climates, mist-wet the surface with water and remove any puddles prior to application.
  - Use medium to high-pressure airless sprayer complete with a 24 inch wand and 0.019 inch fan tip spray jet.
  - Hold spray tip 6 inches from concrete surface.
  - Apply at the rate of 200 square feet per gallon with an overlapping spray pattern of 10-20%.
  - Begin applying at the lowest level elevation.
    For example, walls and slopes should be applied side to side, from the bottom up.
  - Surface paint, wax or anything else must be chemically or mechanically removed before spraying.
  - Do not apply Seal100 when temperature is near freezing.
  - Highly water saturated wall (basement) should be 2 times spray with 7 to 14 days interval (Ventilation should be provided).
  - When applying any coating on surface, wait 24 hours after sealing with Seal100, then flush surface with water and allow to dry

#### LIFETIMECRETE

before coating.

### 2. <u>As a cure method</u>

- Use a low-pressure non-atomizing spray apparatus such as a pump-tank sprayer or mechanical cure slurry pump or equivalent.
- Apply to the newly poured concrete surface as soon as is practical following its surface finish. Concrete should be allowed the time to adequately harden, so as not to imprint or mar its surface during application.
- Applying converage rate is 150 to 200 square feet per gallon for broom finish concrete; 300 to 350 square feet per gallon on hard or steel troweled concrete.

## TECHNICAL DATA

- Physical : Liquid
- Color : Cloudy-white (dries clear)
- Odor : None
- pH:<u>+</u>11.5
- Specific Gravity: 1.10
- Flammability : None
- Toxicity : None
- VOC/VOS Content : None
- Surface Bond Quality : Excellent
- Paintability : Excellent
- Clean-up Solvent : Water
- Environmental Impact : None/Neutral
- R-Factor Increase : Up to 20 percent
- Chloride Screen ability : Excellent
- User Status : Friendly

## PACKAGING

Seal100 is packaged in

- 5 U.S. gal (18.9 liter) pails
- 55 U.S. gal drums.

## **PRECAUTION**

- Any coatings that may restrict access to the concrete's interior must be chemically or mechanically removed for Seal100 to penetrate.
- Protect areas not intended for coverage.
- Seal100 may etch glass or dull shiny aluminum and can be difficult to remove from other surfaces once it dries.
- Do not apply on frozen substrate or when temperature is near freezing.
- Seal100 spray mist is not hazardous to breathe. However, we do recommend the use of a face mask during application. Refer to MSDS.
- For more information read Material Safety Data Sheet.

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