



# GARDSEAL®

**Chemical-type  
concrete  
hardening  
compound used  
for curing, sealing,  
and dust proofing**

**Advantages:**

- Cures, hardens, and dust proofs
- Densifies concrete surface
- Improves abrasion and wear resistance
- Compatible with most flooring adhesives
- Non-flammable, no harmful fumes

**Coverage:**

- Coverage varies based on surface and finishing methods

**See Coverage  
section for full  
details**

**Packaging:**

- 5 gal (18.9L) pail
- 55 gal (208.2L) drum



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## Product Description

GARDSEAL® is a clear solution of liquid sodium silicate formulated into a hardening and sealing compound for new and old concrete surfaces. This solution (commonly called water glass) chemically bonds with the silicates in the concrete creating a stone hard mineral surface. It may also be used as a curing compound for freshly poured concrete.

**HARDENS & SEALS** – GARDSEAL® chemically hardens and seals, when applied after the curing cycle is complete (30 days). The inorganic silicates in GARDSEAL® react with free lime and calcium carbonate present in concrete, hardening, filling and sealing the surface pores. This same process also eliminates or greatly reduces the dusting that occurs on concrete surfaces. GARDSEAL® will not distort the physical characteristics of the concrete or prevent normal adhesion of other products when it is applied according to our instructions.

**CURES** – GARDSEAL® cures when applied immediately after the concrete finishing is complete creating a water glass film at the surface assuring a positive cure.

GARDSEAL® does not meet requirements of ASTM C309-91, Liquid Membrane Forming Compounds for Curing Concrete. Sodium silicate solutions are chemically reactive rather than membrane forming.

GARDSEAL® can be used on interior or exterior concrete floors, decks, ramps, pavements or on vertical walls. It is a colorless solution that will not stain concrete, therefore safe for architectural type concrete. GARDSEAL® is most often specified where a harder, abrasion resistant concrete surface is required. When applied to fresh concrete it restricts bleeding and evaporative loss of the hydration water at the surface. On aged concrete, it provides a new hardwearing surface especially when the surface has begun dusting or granulating.

GARDSEAL® will surface harden and improve the weather-ability of vertical structural concrete when applied after concrete form stripping.

Surface may be painted, carpeted, or tiled, without further modification. GARDSEAL® is compatible with and provides good adhesion for oil and water based latex paints, latex and asphaltic cutback type adhesives, asphalt hot and cold pour joint sealants, polymer modified cements.

GARDSEAL® is available with a red fugitive dye for application aiding purposes upon special request. The red dye will disappear rapidly on dry concrete.

## Installation

Before using this product, please refer to the Material Safety Data Sheet for additional information. Proper handling precautions MUST be followed. The conditions of use, handling, and application of this product and information (whether verbal or written), including any suggested formulations and recommendations, are beyond Lambert Corporation's control. Therefore, it is imperative that testing be performed to determine satisfaction and suitability for intended use and health, safety, and environmental issues. The following information is meant as a guideline of best industry practices. While Lambert Corporation does suggest adherence to these guidelines, unforeseeable variables and/or developed successful installer practices may cause variation in methods and/or results.

Apply to form a continuous, uniform film by hand or power spray, a soft bristle push broom, long-nap roller, squeegee, or mop. The type of surface and square footage to be covered will determine the best method of application. Each coat should be allowed to dry thoroughly before the next one is applied. On horizontal surfaces the GARDSEAL® may be liberally poured on the concrete and then spread out evenly making sure no puddles remain.

Apply first coat at a rate of 200 square feet per gallon (4.9m<sup>2</sup>/L). One application on freshly poured concrete cures the concrete. An additional application 30 days later will produce a light duty type wear surface. Surface wearability and dustproofing qualities of concrete increase proportionally with each additional application. No more than 3 applications over a 6 month period should be required.

**DO NOT OVER APPLY.** Two or three thin coats are better than one heavy, thick coat. Do not apply heavier than 200 square feet per gallon (4.9m<sup>2</sup>/L). To ensure proper application with sprayers, use only a clean or new industrial grade sprayer equipped with a non-adjustable fan tipped nozzle, neoprene hose and gaskets. Maintain sufficient pump pressure throughout application. Uniform surface coverage is essential; avoid “puddling” in low areas. If material starts to come out in a stream, versus a fog, or starts to come out in spits and sputters, the nozzle has become clogged. Stop immediately and clean nozzle with hot water before proceeding. Clean the sprayer immediately after use with a water flush. Hot water is best for quick cleaning.

#### **Newly Placed Concrete - Curing**

Curing compounds only work if they are on top of the concrete surface and do not penetrate. The timing of application is important. GARDSEAL® should be applied after setting of cement, immediately after evaporation of the surface water sheen and the concrete surface will not be marred by foot traffic. It is during this time that the concrete is most vulnerable to spalling, hair checking and other surface defects. If surface is dry, it should be completely dampened (no puddles) before applying. Application rate is 200 square feet per gallon (4.9m<sup>2</sup>/L). All traffic should be kept off the cured surface for 24 hours after application or until surface is completely dry. GARDSEAL when applied to fresh concrete is slippery when wet.

#### **Hardening & Sealing New Concrete**

Apply a second coat after 28 days of curing. Area to be sealed must be clean and free of dirt, oil, tire marks, etc. Square foot coverage is approximately 300 square feet per gallon (7.4m<sup>2</sup>/liter) for the second coat but may vary depending upon the porosity and texture of the surface. Apply evenly over entire surface making sure no puddles of GARDSEAL® remain. Additional coats may be required for more efficient dustproofing.

#### **Old Concrete**

Thoroughly clean and remove all foreign material from the concrete surface. Acid etch to open pores if concrete has an extremely smooth, tight surface. Allow to dry 24 hours. Apply GARDSEAL® over the clean, dry surface in two successive coats at a rate of 400 to 600 square feet per gallon (9.8-14.7m<sup>2</sup>/L). Each coat must be applied only on a clean, dry concrete surface.

#### **Vertical Work**

After form stripping, remove any form oils, cure or bond breaker compounds with a light sandblast. Surfaces must be clean, sound, and dry. Apply two coats at 300 square feet per gallon (7.4m<sup>2</sup>/L) allowing 24 hours drying time between applications.

#### **Limitations**

Concrete mix is extremely important when considering the

use of GARDSEAL®. High mixes of “fly ash” (over 20%) can cause potential failures and reduce or eliminate the ability of GARDSEAL® to work properly. It is important to diligently review mix ratios, and perform test applications before applying this product.

Protect all metal, glass, wood, paint, brick, etc., from contact with GARDSEAL® during application. IF MISAPPLIED, WASH WITH CLEAN WATER BEFORE MATERIAL DRIES.

Allow at least 7 days interval before applying tile or floor covering adhesives over GARDSEAL®.

Dry time is approximately one hour under normal weather conditions. High humidity and cooler temperatures will lengthen drying time. Allow to dry before opening to traffic.

## **Technical Data**

### **Applicable Standards**

Sodium silicate solutions are chemically reactive rather than membrane forming; therefore, they do not meet the intent of the ASTM C309 specification as defined in ASTM D 883-91.

### **Properties**

• Solids by weight	18%
• Flash Point	0
• VOC'S	0.
• Acidity	None
• Color	Clear
• Dry Time*	1/2 to 1 hour
• Dry Hard	4 hours

\*Dry time is one hour under normal weather conditions. High humidity and cool weather will lengthen drying time. Water must be allowed to evaporate from the GARDSEAL®, thus high humidity at the surface level will lengthen the dry time by several hours. It is suggested that application be done at a time when weather conditions provide low humidity for 1 to 2 hours. Allow to dry before opening to traffic. GARDSEAL® while still liquid may be removed from concrete by flushing water over the surface.

## **Coverage**

<b>TYPE OF FINISH</b>	<b>ft<sup>2</sup>/gal</b>	<b>(m<sup>2</sup>/L)</b>
• Hard Trowelled	500-600	(12.3 - 14.8)
• Broom or Float	300-400	(7.4 - 9.3)
• Rough Slab	200-300	(4.9 - 7.4)
• Old Untreated	200-300	(4.9 - 7.4)
• Vertical Surfaces	400-500	(9.3 - 12.3)

Coverage is influenced by surface finish and porosity of concrete. The above coverage rates per gallon of GARDSEAL are assuming average concrete, humidity, temperature, job conditions.

## **Clean-Up & First Aid**

### ***Clean-Up***

Clean sprayers, brushes, tools, and equipment with water.

### ***First Aid***

Repeated or prolonged skin or eye contact may cause injury. Prevent contact with skin and eyes. If contact occurs, immediately flush affected area thoroughly with plenty of water.

Do not take internally. May cause irritation of mouth, throat and stomach if ingested. If ingested, DO NOT INDUCE VOMITING. Give water or milk if victim is conscious and not drowsy.

***KEEP OUT OF REACH OF CHILDREN.  
FOR INDUSTRIAL USE ONLY.***