

# AquaSeal-Harden

## SodiumSilicate Sealer - Hardening and Curing



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## TECHNICAL DATA SHEET

### PRODUCT DESCRIPTION

**AquaSeal-Harden** is a clear, water-based, reacting with calcium hydroxide in portland concrete forming stable silica structures which harden, densify and retain moisture while concrete is curing as required by ASTM C309. **AquaSeal-Harden** is an environmentally friendly compound that contains no solvents and has a VOC content that is compliant in all areas of the United States, Australia and EU. A single component material that creates a stronger, more abrasion resistant surface that will stand up to commercial and industrial floors that are looking for long---term protection against moisture, dirt, abuse, and heavy wear.

### USES

**AquaSeal-Harden's** unique single component sodium silicate formulation is applied to concrete slabs whether newly poured or older. **AquaSeal-Harden** will penetrate and react with the free lime to enhance both the curing and hardening characteristics. **AquaSeal-Harden** works well on mechanically trowelled or ground/polished concrete surfaces.

### ADVANTAGES

- Unique Technology – allows deeper penetration and a more complete chemical reaction for maximum sealing/ hardening/densification. AquaSeal-Hard densifies the concrete, forming a barrier to outward migration of moisture, reduces shrinkages and crackings.
- Ease of Application – Easy application, and material is a single component and ready to use
- Durable – one-time installation provides long-lasting protection
- Enhanced Performance – Minimizes shrinkage, dusting and cracking while also improving resistance to chemicals, oil, salts and abrasion during construction



## KEY BENEFITS

- Provides permanent sheen to concrete surface.
- Abrasion resistance.
- Easy auto-scrub final clean-up
- Contributes to LEED EQ credit 4.2

## PHYSICAL PROPERTIES

Form:	Milky white liquid, dries clear, substrate will darken a little and produce a somewhat glossy appearance
Total solids:	30%
Weight/gal:	8.50 +/- 0.015 lbs./gal
Specific Gravity:	1.11
pH Level:	11.0
Flash Point:	N/A
VOC Content:	42 g/L*
Freeze Point:	32° F
Depth of Surface Penetration:	2-8 mm

\* Complies with all VOC of less than 100g/L standards

## PACKAGING

- 275 Gallon Totes
- 55 Gallon Drums (drum containers filled by weight, volume is closely approximate)
- 5 Gallon Pails

## MIXING

**AquaSeal-Harden** is a single component product. Prior to use shake container or stir for one to two minutes. **AquaSeal-Harden** does not need to be diluted.

## APPLICATION METHODS/COVERAGE RATES

**AquaSeal-Harden** is applied at 250-400 sq-ft per gallon. A broomed surface will yield around 250 sq-ft per gallon (6m<sup>2</sup>/L). A tightly trowled surface will yield around 400 sq-ft per gallon (10m<sup>2</sup>/L). Apply after all surface water is gone and after any joints are to be cut. Remove all dust and debris prior to application. Apply evenly without puddles using a pump-up sprayer, roller or brush. It is important to not over apply. Continuously pushing material with a broom to avoid puddles. Wash thoroughly when material starts to dry.

## DRYING TIME

Dries in 1-3 hours and is ready for traffic as soon as the surface is dry.

## **APPLICATION PERIOD/ SHELF LIFE**

**Sealsource AquaSeal-Harden** can be used to seal and harden fresh and old concrete. Early application of Sealsource Aquaseal-Harden will help with moisture retention during curing period. For a more glossy finish on concrete with strength of 22MPa or above, it is best to grind the concrete lightly to obtain a flatter concrete surface prior to the application of Sealsource Aquaseal-harden. Grinding operation can be carried out satisfactorily on most concrete when it achieves 90% of its designed strength, or after aging of 2 weeks.

**AquaSeal-Harden** may be stored for up to five years in unopened, factory-sealed container under normal storage conditions of 55° F - 95° F.

## **COMPLIANCES**

ASTM C1315, Type 1 Class A

ASTM C309, Type 1 Class A & B

AASHTO M---148, Type 1, Class A

Moisture retention: ASTM C 309: <0.52 kg/m<sup>2</sup> in 72 hours (0.55 kg/m<sup>2</sup> max)

## **SAFETY**

- Read Material Safety Data Sheet before using
- Keep out of the reach of children
- Protect from freezing
- Wear safety glasses and rubber gloves
- Do not apply to soft metals
- Do not apply to glass

## **WARRANTY**

SealSource® Australia Pty Ltd will refund the price of or replace, at its sole election, product it finds to be defective provided the product has been used properly. Except as expressly stated above, the Company makes no warranty of merchantability and no warranty of fitness for any particular purpose, nor does it make any warranty, express or implied, of any nature whatsoever with respect to the product or its use. In no event shall the company be liable for delay caused by defects; loss of use; indirect, special or consequential damages; or for any charges or expenses of any nature incurred without its written consent.