

# DUCTILCRETE<sup>®</sup> SHS 20 Surface Hardener

Water based Sodium Silicate Sealer, hardener and dustproofer for concrete.

---

## Product Description

DUCTILCRETE<sup>®</sup> SHS 20 surface hardener is a liquid Sodium Silicate sealer that increases the abrasion resistance of concrete floors. DUCTILCRETE<sup>®</sup> SHS 20 surface hardener penetrates concrete surfaces to seal, densify and harden. Surfaces treated with the product are more abrasion resistant, more resistant to chemicals and water than untreated concrete. The product leaves no film and will not alter the natural nonslip texture of the concrete floor.

## Product Uses

DUCTILCRETE<sup>®</sup> SHS 20 surface hardener protects the concrete from wearing and dusting, and is especially recommended for all types of concrete floors. Some of the typical applications are:

- Warehouses and manufacturing plants.
- Distribution centers.
- Retail stores
- Hospitals.
- Commercial offices.
- Institutional buildings.
- Residential buildings.

## Product Advantages

- Enhance overall surface durability.
- Reduces porosity and increases hardness of the concrete surface.
- Zero V.O.C. compliant.
- Resists staining and penetration of oil and many chemicals.
- Can be applied to fresh, new, or existing concrete.
- Seals, hardens, dustproofs and prevents efflorescence.

## Application

- Surface must be completely dry to allow for penetration of DUCTILCRETE<sup>®</sup> SHS 20 Surface hardener.
- Always apply DUCTILCRETE<sup>®</sup> SHS 20 surface hardener to a clean surface free of dust, laitance, curing agents, impregnation, coatings bond breakers, oil, dirt, grease or debris that will reduce penetration.

## For existing concrete

- Remove all dirt, grease, curing compounds or other foreign matter.
- Using a low pressure sprayer, apply a single saturating coat of DUCTILCRETE® SHS 20 surface hardener to wet the surface without producing puddles. Use a microfiber pad to spread product evenly and ensure uniform wetting. Avoid spreading once drying begins. Keep surface saturated with the product for 20–30 minutes. Adjust rate of application accordingly. Allow treated surfaces to dry at least one hour.
- DUCTILCRETE® SHS 20 surface hardener will develop a low gloss satin finish with use. If desired, a floor buffer can bring out the shine immediately on a well finished, hard troweled floor.
- Alternatively, DUCTILCRETE® SHS 20 surface hardener may be scrubbed using a microfiber pad (or similar) to help the product penetrate into existing concrete.
- Caution: Should white crystals develop, it is a sign that the slab will not absorb any more DUCTILCRETE® SHS 20 surface hardener and that the surface has started to dry. Immediately flush with water, brush with a stiff bristle broom and squeegee any surface water away. Allow to dry.

## For freshly placed concrete

### Curing Application:

- After the final troweling, saturate the concrete surface with a base coat of DUCTILCRETE® SHS 20 surface hardener at approximately 200 ft<sup>2</sup> per gallon.
- Optimum penetration can be achieved by applying DUCTILCRETE® SHS 20 surface hardener 1–2 hours after final finishing. (Typically installed immediately after saw cut/vacuum process).
- Broom or mop the DUCTILCRETE® SHS 20 surface hardener into the slab, reapply additional product to areas that prematurely dry on the surface.
- Keep the slab saturated with DUCTILCRETE® SHS 20 surface hardener for 30–45 minutes, working it into the concrete by brooming. Apply a light water spray to the treated area to finalize penetration and dissolve any remaining DUCTILCRETE® SHS 20 surface hardener
- After the saturation period, thoroughly rinse and then squeegee or brush off excess DUCTILCRETE® SHS 20 surface hardener until dry.

## Coverage Rates

Coverage rates will vary with concrete porosity and roughness of the slab. If the concrete is extremely porous or rough, more than one coat may be necessary. Application temperature above 40° and rising is recommended.

Hard Troweled finish	200-350 ft <sup>2</sup> / gal
Broom or Float Finish	150-250 ft <sup>2</sup> / gal
Rough Slab Finish	150-200 ft <sup>2</sup> / gal
Old Concrete	150-250 ft <sup>2</sup> / gal

## Technical data

Appearance	Clear
Specific Gravity	1.18
Weight/Gal	9.7 lbs./gallon
VOC Content	0 g/l
Dry time	2 to 4 hours.
Shelf life	2 years from date of manufacture (in the original tightly closed containers)

USDA Accepted for Indirect Food Contact

## Packaging & Storage

55 gallon plastic Drums.

5 gallon plastic pails.

Containers are to be stored in a clean, dry area between 40°F and 100°F (5°C - 40°C).

Do Not Freeze.

## Limitations

- Protect metal, glass, brick and painted surfaces. If accidentally mis-applied, wash with clean water at once.
- Do not use over colored or pigmented concrete or as a cure on slabs intended for use as a tilt up casting bed without consulting GCP Applied Technologies/ DUCTILCRETE® technical services.
- If freezing occurs, thaw and stir or agitate before using.
- DUCTILCRETE® SHS 20 surface hardener can be applied to concrete mix designs containing over 10% of pozzolanic material (fly ash, etc.) as long as the concrete has cured for 28 days.
- Application temperature above 40°F and rising is recommended.
- Not recommended to be used on exterior floors.

## Health and Safety

Read and understand the product label and Safety Data Sheet (SDS) for each system component. All users should acquaint themselves with this information prior to working with the products and follow the precautionary statements.

SDSs can be obtained by contacting your local GCP representative or office, by calling GCP and in some cases from our web site at [gcpat.com](http://gcpat.com).

Do not expose to or apply near fire or flames. For use in well ventilated areas only.

For further information, contact your local GCP representative.

[gcpat.com](http://gcpat.com) | North America Customer Service: 1 877-4AD-MIX1 (1 877-423-6491)

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

DUCTILCRETE is a trademark, which may be registered in the United States and/or other countries, of GCP Applied Technologies Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2020 GCP Applied Technologies Inc. All rights reserved.

GCP Applied Technologies Inc., 62 Whittemore Avenue, Cambridge, MA 02140 USA.

This document is only current as of the last updated date stated below and is valid only for use in the United States. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on [www.gcpat.com](http://www.gcpat.com). Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2020-08-03

[gcpat.com/solutions/products/ductilcrete-engineered-systems/ductilcrete-shs-20-surface-hardener](http://gcpat.com/solutions/products/ductilcrete-engineered-systems/ductilcrete-shs-20-surface-hardener)