



PROSOCO®

Conservare®

MASONRY & STONE PRESERVATION

# H100 Consolidation Treatment

Conservare® H100 Consolidation Treatment is a combination consolidation/water-repellent treatment for badly deteriorated stone that requires consolidation and protection from water. This ethyl silicate/silane treatment, modified with a silane water repellent, replaces the natural binding materials while protecting the treated surface from water-related deterioration.

PROSOCO's Consolidation Treatments are based on silicic ethyl esters. Their extremely small molecular structure enables them to penetrate deeply into deteriorated masonry surfaces, collecting at contact points between individual stone grains. An internal catalyst and atmospheric humidity then convert the liquid consolidant into a glass-like silicon dioxide ( $\text{SiO}_2$ ) gel which binds the stone particles together.

Exhibiting chemical characteristics and thermal expansion/contraction characteristics which are virtually identical to that of natural stone, the newly deposited  $\text{SiO}_2$  cementing matrix replaces the stone's natural cement which has been lost due to weathering influences.

PROSOCO's H100 may be used on most types of sandstone, limestone, cast stone, stucco, brick and terra-cotta. All patching and pointing materials should be in place before application of H100. Effective on unpolished marble, travertine and limestone that has been treated with PROSOCO's HCT.

## SAFETY INFORMATION

Always read full label and SDS for precautionary instructions before use. Use appropriate safety equipment and job-site controls during application and handling.

**24-Hour Emergency Information:**  
INFOTRAC at 800-535-5053

## ADVANTAGES

- One component – easy-to-use.
- Low viscosity allows deep penetration. Will not form hardened surface crust.
- The new binder is mineral, similar to the original stone. No synthetic polymers.
- Rapid tack free drying – no dirt attraction.
- Forms no by-products harmful to the masonry.
- Vapor permeable – treated surfaces “breathe.”
- New binder is acid resistant – resists acid rain.
- Appropriate for use on most unpolished surfaces such as travertine, limestone and granite. Always test.
- Compatible with PROSOCO's HCT consolidation treatment.

## Limitations

- Effective consolidation requires thorough field pretesting. Laboratory testing is strongly recommended. Contact PROSOCO for information on the recommended test programs.
- Limited shelf life – remains storage-stable for 12 months in sealed containers.
- Treated areas may bond to silicone and polyurethane molds (frequently used for casting replacement stone). Use a release agent to prevent mold from adhering to treated surface.
- Not suitable for some types of unpolished marble. Always test.
- Not suitable for use on polished surfaces, including marble, travertine, limestone or granite.
- Not recommended for horizontal surfaces designated for pedestrian or vehicular traffic.
- Not for use on architectural concrete block.
- Will not prevent water penetration through structural cracks, defects or open joints.
- Not recommended for below-grade application.

# Product Data Sheet

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- May not be suitable for sale in states and districts with more restrictive AIM VOC regulations. Available in regulation-exempt small container sizes. Call Customer Care at 800-255-4255 for assistance.

### REGULATORY COMPLIANCE

#### VOC Compliance

Conservare® H100 Consolidation Treatment is compliant with the US Environmental Protection Agency's AIM VOC regulations. Manufactured and marketed in compliance with USEPA AIM VOC regulations (40 CFR 59.403).

Visit [www.prosoco.com/voccompliance](http://www.prosoco.com/voccompliance) to confirm compliance with individual district or state regulations.

### TYPICAL TECHNICAL DATA

<b>FORM</b>	Clear, colorless to slight yellow liquid with alcohol odor
<b>SPECIFIC GRAVITY</b>	0.936
<b>pH</b>	Not applicable
<b>WT/GAL</b>	7.79 lbs
<b>ACTIVE CONTENT</b>	100%
<b>TOTAL SOLIDS</b>	47% ASTM D 5095
<b>VOC CONTENT</b>	>400 g/L
<b>FLASH POINT</b>	110°F (43°C) ASTM D 3278
<b>FREEZE POINT</b>	<-22°F (<-30°C)
<b>SHELF LIFE</b>	1 year in tightly sealed, unopened container

### THE IMPORTANCE OF PRETESTING

Since building materials differ in their nature and degree of deterioration, each conservation project poses unique problems and requirements. To gain a full understanding of the ongoing deterioration and determine necessary stabilization/conservation measures, field testing is required and laboratory testing is strongly recommended.

#### On-Site Testing

A test area should be cleaned and allowed to dry. The job-site test area should be as large as possible and representative of the condition of the entire project.

Include in the test area any previous repairs and patches, including aesthetic cementitious finishes. Different surface compositions may result in absorption and/or appearance differences.

The test area is necessary to confirm application procedures under job-site conditions and allow calculation of the masonry's consumption rate. The on-site tests also provide a visible sample of the effects of the treatment on actual job surfaces. Additional core samples can be taken from the test area and tested by PROSOCO's laboratory to verify depth of penetration and proper application procedures.

#### Laboratory Testing

Laboratory testing is strongly recommended to determine the absorption profile and conservation capacity of the substrate(s).

- a. Evaluates the physical and chemical characteristics of the substrate(s) to confirm whether consolidation is possible.
- b. Identifies the cause(s) of deterioration and surface preparation procedures necessary for conservation treatment.
- c. Determines the most appropriate conservation agent(s) and field application procedures.

For more information on the recommended testing program, read the AMT Labs Conservation Treatment Evaluation Brochure and contact your PROSOCO representative to arrange a job-site visit.

### PREPARATION

Following on-site testing, and the conclusion of any laboratory testing, clean the building with the appropriate PROSOCO cleaner. In most cases, surface contaminants such as carbon crust, salts, pigeon droppings, mildew and atmospheric stains must be completely removed to assure thorough penetration of H100. Surface sealers and repellents which may have been applied must be thoroughly removed. (See NOTE below.) Contact Customer Care at 800-255-4255 for additional cleaning recommendations.

**NOTE:** If pre-consolidation is necessary, further evaluation will be required to ensure that no undesirable reactions take place between the consolidation treatment and the surface



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contaminants which may interfere with further conservation measures, i.e. subsequent cleaning, general consolidation, patching/repair, etc.

Protect people, vehicles, property, metal, glass, plants, painted surfaces and all non masonry surfaces from contact with product, splash, fumes and wind drift. Protect and/or divert pedestrian and auto traffic.

Ensure fresh air entry and cross ventilation during application and drying. Extinguish all flames, pilot lights and other potential sources of ignition during use and until all vapors are gone. When applying to exteriors of occupied buildings, make sure all windows, exterior intakes and air conditioning vents are covered and air handling equipment is shut down during application and until all vapors have dissipated.

### Surface and Air Temperatures

Surface and air temperatures should be between 50–90°F (10–32°C) during application. Relative humidity should be greater than 40%.

Protect surface to be treated from direct sunlight for several hours before application. If possible, start treatment when surfaces are shaded. Keep surface temperature relatively cool to prevent too rapid evaporation of H100 and to ensure proper penetration. Do not apply during rain, to wet surfaces or when there is a chance of rain.

### Equipment

Apply by low-pressure spray, brush or dipping. Larger surfaces should be treated using low-pressure spray equipment, small areas with spray tanks.

Mobile objects such as sculptures may be treated indoors by dipping or with the use of compresses. Contact Customer Care or your local PROSOCO sales manager for additional information.

### Storage and Handling

Store in a cool, dry place away from potential ignition sources. Keep tightly closed when not dispensing. Published shelf life assumes upright storage of factory-sealed containers in a dry place. Maintain temperature of 45–100°F (7–38°C). Do not double stack pallets. Dispose of unused product and container in accordance with local, state and federal regulations.

## APPLICATION

Read “Preparation” and the Safety Data Sheet before use.

### Dilution & Mixing

Use as packaged. Do not dilute or alter. Stir or mix well before use.

### Typical Coverage Rates

Coverage rates vary depending on the substrate and deterioration conditions. Field testing is required, and laboratory testing is strongly recommended, to confirm desired results and application procedures.

### Application Instructions

Ensure proper penetration and prevent crust formations by applying H100 in repeated applications referred to as “cycles.” A cycle consists of three successive saturating applications at 5–15 minute intervals. Typical treatments involve two or three cycles (6–9 separate applications). Allow 20 to 60 minutes between cycles.

**NOTE:** Laboratory testing is strongly recommended to determine the absorption profile and conservation capacity of the substrate(s). From this information, the optimal delay between saturating coats, and dwell time between cycles will be prescribed. The work area should be limited to a size that can be treated within the prescribed time periods.

Additional material should be applied until excess material remains visible on the surface for 60 minutes following the last application. Once this degree of saturation is achieved over the entire surface, the first treatment is complete.

Immediately flush excess surface materials using industrial grade MEK (methyl ethyl ketone) or mineral spirits. If a second treatment is necessary, allow two to three weeks curing time following first treatment.

Proper timing of the application process will maximize penetration of the consolidation treatment. Deep penetration is critical to the long term benefits of any consolidation treatment.

### Dry Time

Protect from rain for two days following application.



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### Cleanup

Clean tools and equipment immediately with mineral spirits, denatured alcohol or an equivalent cleaning solvent. Remove over spray and spills as soon as possible.

### Post-Treatment

Excess material should be removed before application of repair materials. Areas properly treated with H100 can receive PROSOCO's BMC® II silicone emulsion paint after the consolidation procedures have been completed.

### WARRANTY

The information and recommendations made are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made because we cannot cover every possible application of our products, nor anticipate every variation encountered in masonry surfaces, job conditions and methods used. The purchasers shall make their own tests to determine the suitability of such products for a particular purpose.

PROSOCO, Inc. warrants this product to be free from defects. **Where permitted by law, PROSOCO makes no other warranties with respect to this product, express or implied, including without limitation the implied warranties of merchantability or fitness for particular purpose.** The purchaser shall be responsible to make his own tests to determine the suitability of this product for his particular purpose. PROSOCO's liability shall be limited

in all events to supplying sufficient product to re-treat the specific areas to which defective product has been applied. Acceptance and use of this product absolves PROSOCO from any other liability, from whatever source, including liability for incidental, consequential or resultant damages whether due to breach of warranty, negligence or strict liability. This warranty may not be modified or extended by representatives of PROSOCO, its distributors or dealers.

### CUSTOMER CARE

Factory personnel are available for product, environment and job-safety assistance with no obligation. Call 800-255-4255 and ask for Customer Care – technical support.

Factory-trained representatives are established in principal cities throughout the continental United States. Field visits by PROSOCO personnel are for the purpose of making technical recommendations only. **PROSOCO is not responsible for providing job-site supervision or quality control. Proper application is the responsibility of the applicator.** Call Customer Care at 800-255-4255, or visit our website at [prosoco.com](http://prosoco.com), for the name of the PROSOCO representative in your area.

