

DESCRIPTION: CN100 is a ready-to-use consolidation treatment that stabilizes, strengthens and densifies natural stone and masonry by replacing the natural binding materials lost due to deterioration, decay, weathering and other causes. When properly applied, CN100 penetrates deeply, 10-20cm (4-8 inches) and retains the substrate's natural vapor permeability.

In instances where salt water can continue to be on the surface, a second water resistant surface silicone can be added which will form a matrix that repels salt water while CN100 is curing.

In addition to the general consolidation of severely deteriorated masonries, CN100 is an effective pretreatment for friable substrates that need to be strengthened before cleaning, patching or coating and can be very effective at slowing or preventing on-going salt water erosion. CN100 may be used on most types of natural stone, concrete, stucco, brick, terra-cotta, etc.

CN100 is based on a silane with an extremely small molecular structure which 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 silane into silicon dioxide (SiO₂) a silica-gel like binder which binds the stone particles together. The newly deposited silica-gel like binder replaces the stone's and masonry's natural cement which has been lost due to weathering influences exhibiting chemical characteristics and thermal expansion/contraction characteristics which are virtually identical to that of natural stone.

BACKGROUND: Although historically natural stone and masonry are one of the most durable materials, it has become apparent in recent years, however, that these materials are not as enduring as once believed. Placed in contemporary urban environments, these "timeless" materials can decay at alarming rates. Some deterioration may be attributed to the natural weathering process. In the case of masonry, the majority of the deterioration, however, is the result of oversights in use and maintenance of the masonry, and of the impact that industrialization has had in the form of "acid deposition".

CN100 treatment was created to restore the structural integrity to crumbling, decaying natural stone and masonry and/or provide a means of controlling future decay.

FEATURES

- Multi-component - strengthens deteriorated/deteriorating stone.
- Will help in slowing salt water erosion
- No aesthetical change to substrate.
- Small molecule, low viscosity allows deep penetration. Does not form surface crust.
- The cross-linking binder is mineral – similar to the original stone.
- Rapid initial drying – no dirt attraction.
- Forms no by-products harmful to the masonry.
- Treated surfaces "breathe" – does not trap moisture – cures water resistant.
- CN100 is very acid rain resistant.

ALWAYS TEST a small area of each surface to confirm suitability and desired results before starting overall application. Be sure to become familiar with multiple app-steps (see General Application Paragraph). Test with the same equipment, recommended surface preparation and application procedures planned for general application.

The test area is necessary to confirm application procedures under job site conditions and allow calculation of the consumption rate. The on-site tests also provide a visible sample of the effects of the treatment on actual job surfaces.

PREPARATION: Protect people, vehicles, property, metal, glass, foliage, painted surfaces and all non-masonry surfaces from contact with product, fumes or 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.

CLEANING THE SUBSTRATE: Following on-site testing, clean the area with the appropriate product, power washing is recommended unless too much surface will be lost. 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 CN100. In addition, surface

sealers and repellents which may have been applied must be thoroughly removed.

In cases where pressure washing would remove an unacceptable level of surface detail, CN100 Consolidation Treatment may be applied to the soiled surface to pre-consolidate the stone. If such pre-consolidation is necessary, further evaluation will be required to ensure that no undesirable reactions take place between the consolidation treatment and the surface contaminants which may interfere with further conservation measures, i.e. subsequent cleaning, general consolidation, patching/repair, etc.

Equipment: Apply by low-pressure spray, brush or dipping. Larger surfaces should be treated using low-pressure spray equipment, most pump up sprayers will work fine. Mobile objects such as sculptures are best treated indoors by dipping or with the use of compresses.

APPLICATION

Dilution: Do not dilute or alter, stir, shake or mix well before use.

Coverage Rates; Coverage rates vary depending on the substrate and degree of deterioration.

APPLICATION INSTRUCTIONS

Initial Direct Sunlight Protection

- Keep surface temperature relatively cool to prevent too rapid evaporation of CN100 and to ensure proper penetration.
- Protect surface to be treated from direct sunlight for several hours prior to beginning application.
- Whenever possible, begin treatment when surfaces are shaded.
- Do not apply during rain, to wet surfaces or when there is a chance of rain.
- During the first 2-3 days after the treatment the substrate should be protected against rain and direct sunlight. The reaction will be complete after 2-4 weeks.

General Application

Apply CN100 in repeated applications referred to as “app-steps.” An app-step consists of two and sometimes three successive saturating applications depending on the amount of deterioration. Wait 5 – 15 minutes between app-steps; all of the material will have been absorbed and the surface will have started drying but is still wet. Material should be applied until excess material remains visible on the surface.

If a second treatment is necessary, allow two to three weeks curing time following first treatment. Deep penetration with maximum saturation is critical to the long-term benefits of any consolidation treatment. Because of the low viscosity CN100 can penetrate 4 – 8 inches.

Post-Treatment

After curing, if applicable, apply one of Serveon’s water repellent or “wetlook” sealants to ensure protection from further future damage.

LIMITATIONS

- Will not prevent water penetration through structural cracks, defects or open joints.
- Not recommended for below-grade application.
- Although it can greatly slow and delay salt water erosion it may not eliminate all erosion.
- Limited shelf life – remains storage stable for approximately 12 months in sealed containers.
- Not suitable for architectural concrete block and some types of marble.

Surface and Air Temperatures: Surface and air temperatures should be between 41–68°F (5–20°C) during application. Relative humidity should be greater than 40%. Excessive surface heating can be prevented by shading with awnings.

Low Humidity Environments: In low humidity areas – surface may need to be dampened prior to application.

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.

Storage and Handling

Store in a cool, dry place and 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 45–95°F (7–35°C).

REGULATORY COMPLIANCE

VOC Compliance; CN100 Consolidation Treatment is compliant with the following national, state and district AIM VOC regulations:

US Environmental Protection Agency - It is not compliant with the following:

- California Air Resources Board SCM Districts

- South Coast Air Quality Management District
- Maricopa County, AZ
- Northeast Ozone Transport Commission
- Manufactured and marketed in compliance with
- USEPA AIM VOC regulations (40 CFR 59.403)

SAFETY INFORMATION

CN100 Consolidation Treatment is a solvent carried product and may cause symptoms typical with organic solvent exposures. This is a combustible material. Use appropriate ventilation, safety equipment and job site controls during application and handling. Read the full label for precautionary instructions before use.

First Aid:

Ingestion: If swallowed, call a physician immediately. Do not induce vomiting except at the instruction of a physician. If vomiting occurs, keep head below waist to prevent entry of liquid into lungs. **Eye Contact:** Rinse eyes thoroughly for 15 minutes. Get medical assistance.

Skin Contact: Rinse thoroughly. Get medical attention if irritation persists. Launder contaminated clothing before reuse.

Inhalation: Remove to fresh air. Give artificial respiration if not breathing. Get immediate medical attention.

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

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 natural stone and 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.

SERVEON LLC warrants this product to be free from defects. Where permitted by law, SERVEON 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. SERVEON'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 SERVEON 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 SERVEON, its distributors or dealers.

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