



# CLEAR PENETRATING SEALER

## Technical Data Sheet



Damp surface application



Will not harm glass



Plant-Friendly



Concentrated



One sealer works on most substrates

## A. Introduction

CLEAR PENETRATING SEALER is a concentrated, breathable, water-based, VOC compliant, penetrating sealer. Penetrates deeply and reacts chemically with the substrate to form a long-lasting, water-repellant surface.

## B. Products and Formulations

# CLEAR PENETRATING SEALER

CLEAR PENETRATING SEALER is water soluble, reactive technology. It penetrates 1/64-1/32 inches into the substrate, protects the structure from weathering and has UV stability with life expectancy potential of over 10 years. It is a breathable waterproofing technology where the water cannot seep through, but the water vapor can escape.

CLEAR PENETRATING SEALER waterproofs any type of masonry or concrete substrate and creates a near impervious layer.

### CLEAR PENETRATING SEALER Diluted Solution

#### *a. Preparation*

CLEAR PENETRATING SEALER should be diluted with potable water (TDS below 1000 ppm) to obtain clear transparent solution.

CLEAR PENETRATING SEALER solution (1:20) is made by adding 1 liter CLEAR PENETRATING SEALER in 5 gallons of water or 20 liters to 100 gallons of potable water. In the document hereafter, diluted CLEAR PENETRATING SEALER solution will mean the dilution ratio unless specified otherwise.

CLEAR PENETRATING SEALER is best applied at ambient temperatures of 40°F to 110°F.

#### *b. Application*

##### **Vertical Surfaces**

Apply 1:20 dilution of Clear Penetrating Sealer and saturate from top to bottom using brush, roller or sprayer. (See chart on page 4 for coverage rates).

#### *c. Curing & Drying*

CLEAR PENETRATING SEALER treated surfaces are cured when water evaporates completely. Check surface by splashing water drops on the treated surface. Beaded water droplets should remain for 10 to 15 minutes indicating that the surface is cured.

## C. Common Application Procedures

### *a. Surface preparation, testing and defect rectification*

#### **Surface cleaning**

Clean the surface by chipping and removing all the loose cement mortar. Remove debris by grinding and clean the dust using a non-compressed air blower or industrial vacuum cleaner followed by high pressure water-jet cleaning.

## D. On Site Techniques

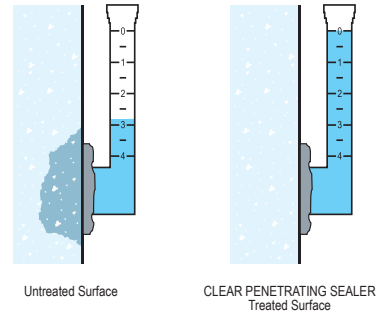
To monitor and evaluate CLEAR PENETRATING SEALER waterproofing integrity follow these test procedures.

### a. RILEM Test

RILEM Test Method II.4 is for measuring the volume of water absorbed by a material within a specified time period. The test can be performed at the site for vertical or horizontal surfaces. It simulates pressure created by wind-driven rain of 85mph.

#### Rilem Test Procedure:

- 1) Affix the bottom end of the tube on the masonry surface with clay or putty. Apply manual pressure to ensure adhesion.
- 2) Add water through the upper, open end of the pipe using long pipette to prevent any air bubbles in the tube until the column reaches the zero graduation mark.
- 3) After 20 minutes, check the quantity of water absorbed by the material in a specified time (20 minutes). This can be read directly from the graduated tube.



#### RILEM TUBES – VERTICAL

Waterproofing is confirmed when a water level decrease is observed at less than 0.2 ml.

## Description

Clear Penetrating Sealer is a concentrated, breathable, water-based, VOC compliant, penetrating sealer. Penetrates deeply and reacts chemically with the substrate to form a long-lasting, water-repellant surface.

|                              |   |   |
|------------------------------|---|---|
| <b>Concentrate Packaging</b> | 1 liter to 5 gallons of potable water<br>20 liters to 100 gallons of potable water                                      |   |
| <b>Color</b>                 | Pale yellow   |   |
| <b>Shelf Life</b>            | 2 years when properly stored  |   |
| <b>Storage</b>               | Store in unopened containers in a clean, dry area between 40°F and 110°F (4°C and 43°C)                                 |   |
| <b>Where to Use</b>          | <u>APPLICATION</u> <ul style="list-style-type: none"> <li>• Buildings</li> <li>• Bridges</li> <li>• Stadiums</li> </ul> | <u>LOCATION</u> <ul style="list-style-type: none"> <li>• Vertical</li> <li>• Exterior</li> <li>• Above grade</li> </ul> |

## D. On Site Techniques con't.







### CLEAR PENETRATING SEALER Coverage Rates

| Substrate   | Coverage Rate                |
|---|------------------------------|
| Limestone*, Sandstone, Porous Marble  | 125 sq. ft. per mixed gallon |
| Porous Vertical Brick, Concrete Pavers, Stucco  | 150 sq. ft. per mixed gallon |
| Slate   | 175 sq. ft. per mixed gallon |
| Manufactured Concrete Stone, Hard Fired Brick, Vertical Poured Concrete, Pre-cast Stone | 200 sq. ft. per mixed gallon |

### How to Apply

- 1) Test an inconspicuous area of the surface before starting general application to ensure desired results and coverage rates.
- 2) Verify substrate has properly cured. Substrate should obtain 80% of design strength.
- 3) Clean all surfaces of sand, dust and dirt, oil, grease, chemical films and coatings, and other contaminants prior to application.
- 4) Add sealer concentrate to water and mix.
- 5) Air, material, and surface temperatures should be 40°F (4°C) or higher during application. Do not apply sealer when temperatures are expected to fall below 40°F (4°C) within 12 hours or when rain is expected within 4 hours following the application.
- 6) Apply to saturation using low-pressure non-atomizing spray.
  - Spray until saturated; no run down requirement
  - Pot life: 24 hours once mixed
  - Coats required: One application
- 7) If Clear Penetrating Sealer gets on glass or metal surfaces, thoroughly rinse with water immediately (or within ½ hour of application), wipe or squeegee, then apply Clear Penetrating Sealer to areas below glass or metal surfaces where rinsing occurred. If additional glass cleaning is required, use a non-ionic glass cleaner or cleaning agent (one that contains no ammonia and is acid-free).

\*Limestone contains varying amounts of silica and Clear Penetrating Sealer may not work on every type. Please test in advance before applying.

| Features  |                                  | Benefits   |
|---|----------------------------------|--|
| <b>MU</b>   | <b>Multi-use</b>                 | <ul style="list-style-type: none"> <li>• Exclusive “no tarp, no tape” formula uses nanoparticles to create the only masonry sealer suitable for most standard substrates.</li> </ul>   |
|    | <b>Water-based</b>               | <ul style="list-style-type: none"> <li>• Will not harm metal, plastic, glass, plants or other common vegetation.</li> </ul>  |
|    | <b>Cost savings</b>              | <ul style="list-style-type: none"> <li>• Minimum to no protection required from overspray on to windows, metal, aluminum and common vegetation.</li> <li>• 20% increase in coverage rates over leading competitors.</li> </ul>                                     |
|    | <b>Concentrate</b>               | <ul style="list-style-type: none"> <li>• Saves transportation and shipping costs for both the distributor and contractor.</li> <li>• Saves jobsite waste.</li> <li>• Sold in convenient, 1 liter and 20 liter concentrates. Simply pour, mix and apply.</li> </ul> |
| <b>CPS</b>  | <b>CLEAR PENETRATING SEALER</b>  | <ul style="list-style-type: none"> <li>• Can be applied to damp surfaces.</li> <li>• Helps reduce efflorescence, atmospheric staining, and mildew.</li> <li>• Can be painted, is UV stable.</li> </ul>   |
|   | <b>Breathable</b>                | <ul style="list-style-type: none"> <li>• Allows interior moisture to escape without damaging sealer.</li> </ul>  |
|  | <b>Transparent, non-staining</b> | <ul style="list-style-type: none"> <li>• Does not alter the natural surface appearance.</li> </ul>   |
|  | <b>VOC compliant</b>             | <ul style="list-style-type: none"> <li>• &lt;350 g/L.</li> <li>• Can be used in and around occupied spaces due to very low odor.</li> <li>• Environmentally friendly.</li> </ul>   |

## Typical Properties

|   |   |
|---|---|
| <b>Active alkylalkoxysilane content</b>     | % by weight > 40  |
| <b>Penetration</b>                          | 5-10 nanometers average depth, depending upon substrate |
| <b>Surface appearance after application</b> | unchanged   |

## Clean-up

Clean equipment with water.

## For Best Performance

- Do not apply during inclement weather or when rain is expected within 4 hours or within 12 hours if temperatures are expected to fall below 40°F.
- Take precaution with coated glass. Test small areas before application to ensure the product does not discolor the coating.
- Variations in the texture and porosity of the substrate will affect the coverage and performance of the product.
- CLEAR PENETRATING SEALER will not inhibit water penetration through unsound or cracked surfaces, or surfaces with defective flashing, caulking, or structural waterproofing.
- Make certain the most current versions of product data sheet and MSDS are being used.
- Proper application is the responsibility of the user.

## Performance Testing

*Laboratory testing shows Clear Penetrating Sealer is a highly effective general-purpose water repellent.*

| Test  | Substrate               | Result |
|---|-------------------------|--------|
| ASTM C67 (water repellency)   | Brick                   | Pass   |
| ASTM D6532 (water repellency)   | Concrete                | Pass   |
| ASTM E514 (water penetration and leakage through masonry compared to untreated control) | Brick Wall Construction | Pass   |
| ASTM D6490 (E-96; vapor permeability)<br>Pre-cast Stone                                 | Concrete                | Pass   |

## Health & Safety

CLEAR PENETRATING SEALER

### Risks

Flammable liquid and vapor. May cause skin and eye irritation. Inhalation of vapors may cause irritation and intoxication with headaches, dizziness and nausea. Reports associated with repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. Ingestion may cause irritation of the mouth, throat and stomach with nausea and abdominal pain. **INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.**

### Precautions

**KEEP OUT OF THE REACH OF CHILDREN. KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION.** Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Avoid breathing vapors. Keep container closed. Use only with adequate ventilation. **DO NOT** take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations. **DO NOT** cut or weld on or near empty container. Empty container may contain explosive vapors or hazardous residues. All label warnings must be observed until container is commercially cleaned or reconditioned.

### First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. **SEEK IMMEDIATE MEDICAL ATTENTION.** In case of skin contact, wash affected areas with soap and water. If irritation persists, **SEEK MEDICAL ATTENTION.** Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, **SEEK IMMEDIATE MEDICAL ATTENTION.** If swallowed, **SEEK IMMEDIATE MEDICAL ATTENTION.** Should vomiting occur, keep victim's head below hips to avoid aspiration of vomitus into victim's lungs. Refer to Material Safety Data Sheet (MSDS) for further information.

### Proposition 65

This product does not knowingly contain chemicals listed by the state of California as known to cause cancer, birth defects or other reproductive harm.

### VOC Content

Less than 350 g/L

This is a reactive penetrating sealer per SCAQMD, BAAQMD guidelines

**For medical emergencies only, call ChemTrec 1-800-424-9300**

**Carlisle Coatings & Waterproofing**  
900 Hensley Lane • Wylie, TX 75098  
800.527.7092 • [www.carlisleccw.com](http://www.carlisleccw.com)

