



## ENVIROSEAL® 40

Clear water-based, 40% silane penetrating sealer



### Where to Use Enviroseal® 40

- Concrete vertical (architectural, glass fiber reinforced, precast, poured in place)
- Concrete horizontal (cast-in-place/precast, silica fume)
- Old and new structures
- Bridge decks
- Concrete highway road surfaces
- Ramps and barrier rails
- Parking garages
- Stadiums
- Cooling towers
- Many other reinforced concrete structures

### Advantages

- Water based, VOC compliant
- Excellent penetration
- Ideal for traffic-bearing surfaces
- Horizontal or vertical use
- Interior or exterior use
- Breathable
- Does not alter surface appearance
- Easy to apply
- Environmentally friendly
- Protects against damage from moisture intrusion and chloride ion penetration

## How to Apply Enviroseal® 40

### Surface Preparation

- 1 Verify substrate has properly cured. Concrete should obtain 80% of design strength, typically achieved within 14 to 28 days.
- 2 Concrete surfaces shall be cleaned of all sand, surface dust and dirt, oil, grease, chemical films and coatings and other contaminants prior to application. A complete waterblast, sandblast or shotblast may be needed to achieve the desired surface condition.
- 3 Surface, air, and material temperatures should be 40°F to 110°F (4°C to 43°C) during application. Do not apply Enviroseal® 40 when temperatures are expected to fall below 40°F (4°C) within 12 hours.
- 4 Surfaces to be treated can be slightly damp; however, a dry surface is suggested for maximum penetration of sealer. Enviroseal® 40 should not be applied if standing water is visible on the surface to be treated.
- 5 Crack control, caulking, patching and expansion joint sealants can be installed prior to or following application of the sealer. Allow a minimum of 6 - 12 hours curing time for caulking and sealant materials (or until they have skinned over) before applying Enviroseal® 40.

### Application

Test small area of surface (generally a 5' x 5' [1.5 m x 1.5 m] section) before starting general application of any clear, penetrating sealers to ensure desired results and coverage rates. Allow 5 - 7 days for the product to fully react before evaluating. Refer to Tech Note: Test Area Application.

- 1 Stir material thoroughly prior to and during application.
- 2 Apply to saturation. This may be done by low-pressure non-atomizing spray or pouring, followed by a squeegee or a broom for even distribution.

### Dry Time

Typical drying time for Enviroseal® 40 is 4 hours at 70°F (21°C) and 50% relative humidity. Cooler temperatures or higher relative humidity can extend the drying time.

### Clean Up

Clean equipment and tools with hot soapy water. Overspray can be cleaned immediately with hot soapy water. Dried residue can be cleaned with a mild citric acid or very hot water, then scrubbed with a plastic sponge.

### For Best Performance

- Keep material from freezing.
- Do not dilute Enviroseal® 40.
- Enviroseal® 40 may leave a temporary slippery surface for up to several hours after application. Therefore, traffic-bearing surfaces should not be reopened until the treated surface is dry.
- Line striping can be done following application of the sealer.
- Variations in the texture and porosity of the substrate will affect the coverage and performance of the product.
- Do not apply during inclement weather or when inclement weather is anticipated within 12 hours.
- Enviroseal® 40 will not inhibit water penetration through unsound or cracked surfaces, or surfaces with defective flashing, caulking, or structural waterproofing.
- To prevent damage to nearby shrubbery and landscaping, cover or protect with drop cloth.
- Make certain the most current version of this data guide is being used; call Customer Service (1-800-433-9517) to verify the most current version .
- Proper application is the responsibility of the user. Field visits by ChemRex® personnel are for the purpose of making technical recommendations only and are not for supervising or providing quality control on the jobsite.

## Technical Data

| Physical property  | Result  |
|--|---|
| Composition  | Alkylalkoxysilane in water  |
| Total solids and active ingredients by weight                    | 40%   |
| Appearance   | White, milky liquid   |
| VOC content (EPA method 24)                                      | Less than 350 grams/liter   |
| Flash Point (ASTM D 3278)  | Greater than 200°F (93°C) SETA  |
| Specific Gravity, 77°F (25°C)                                    | 0.95  |
| Density  | 7.9 lbs./gal.   |
| Average depth of penetration                                     | 0.24" (6.1 mm), depending upon substrate  |
| Resistance to chloride ion penetration<br>(AASHTO T259 and T260) | Less than 0.31 kg/m <sup>3</sup> /0.52 lbs./yd. <sup>3</sup><br>(criteria of 1.5) at 1/2" (13 mm) level<br>Less than 0.00 kg/m <sup>3</sup> /0.00 lbs./yd. <sup>3</sup><br>(criteria of 0.75) at 1" (25 mm) level |
| Water absorption test (ASTM C 642)                               | 0.42%/48 hours; 1.2%/50 days  |
| NCHRP 244  |   |
| Series II-cube test  |   |
| Water weight gain  | 85% reduction - exceeds criteria  |
| Absorbed chloride  | 87% reduction - exceeds criteria  |
| Series IV - Southern climate                                     |   |
| Absorbed chloride  | 99% reduction - exceeds criteria  |
| Alberta Transportation and Utilities                             |   |
| Type 1b  | Initial performance 89.0<br>Post abrasion performance 89.4<br>(non-air-entrained concrete)  |
| Scaling resistance test (ASTM C 672)                             | 0 rating "No Scaling" (100 cycles treated concrete)   |

Test results are averages obtained at a coverage rate of 125 ft.<sup>2</sup>/gallon under laboratory conditions. Reasonable variations can be expected.

## Order Information

### Packaging

Enviroseal® 40

- 5 gallon (19 L) container
- 54 gallon (205 L) container

### Shelf Life

- Shelf life is one year if stored in original, unopened containers under normal conditions. Store material between 35°F and 110°F (2°C and 43°C)

## Coverage

Concrete

- 100 - 200 square feet per gallon (2.4 - 4.8 m<sup>2</sup>/L)

Brick

- 100 - 200 square feet per gallon (2.4 - 4.8 m<sup>2</sup>/L)

Hydrozo® always recommends applying a test area to determine actual coverage rates. Coverage rates will vary greatly with the porosity of the substrate. On extremely porous substrates, two coats may be necessary; application of second coat should take place as soon as initial surface drying of first coat has become visible.

## Caution

Enviroseal® 40 contains alkoxy silane

## Risks

May cause skin, eye or respiratory irritation. Ingestion may cause irritation.

## Precautions

KEEP OUT OF THE REACH OF CHILDREN. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. 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.

## First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. 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 or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

For more information see Material Safety Data Sheet (MSDS) for this product.

## Proposition 65

This product contains material listed by the state of California to cause cancer, birth defects or other reproductive harm.

## VOC Content

399 g/L or 3.33 lb./gal. less water and exempt solvents.

**For medical emergencies only, call ChemTrec (1/800/424-9300).**

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### Limited Warranty Notice

Every reasonable effort is made to apply ChemRex® exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, CHEMREX® MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and CHEMREX® shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the ChemRex® Technical Manager.



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