



# U-SEAL

## Waterborne two-part Hybrid polyurethane/acrylic sealer

### High-performance ◇ Enhancing ◇ Easy to Use

**DESCRIPTION:** Fishstone **U-SEAL™** sealer is a high performance, two-component hybrid urethane/acrylic sealer formulated specifically for the decorative concrete industry. FISHSTONE **U-SEAL™** SEALER is chemically resistant, highly durable, and cures hard within 24 hours of application and full cure in 7 days. FISHSTONE U-SEAL SEALER offers enhancement of the substrate similar to solvent borne sealers, provides a 2 hour pot life, and is easy to apply. **VOC COMPLIANCE:** When mixed and used according to directions, FISHSTONE U-SEAL conforms to all Federal, State and Local VOC regulations and contains less than 50 grams per liter.

- UV Stable
- Matte finish
- Enhancing to concrete
- High solids
- Easy to repair and touch up
- Coverage 100-150 sq/ft per quart



- 3:1 ratio, Easy to mix
- 2 hour pot life
- Water Based
- Heat Resistant to 350°F (176°C)
- Fast recoat time
- VOC compliant

**SURFACE PREPARATION:** Surfaces must be completely dry, structurally sound, clean and free of oil, dirt, grime and other foreign substances. Surfaces should be ground or etched to a profile to at least that of 220 grit sandpaper. The concrete may be etched with one part Fishstone Clean & Etch diluted with 1 to 2 parts water, followed by thorough rinsing and allowed to dry before application. If applying over existing FISHSTONE U-SEAL SEALER or if applying a second coat more than 16 hours after application of the first coat, sand surface with a 120 grit disk, followed by cleaning. Rinse thoroughly and allow to dry before application. FISHSTONE U-SEAL SEALER is not recommended for application over surfaces previously painted or sealed surfaces, unless compatibility has been tested.

**MIXING INSTRUCTIONS:** Mixing instructions must be strictly adhered to. Add one part by volume of FISHSTONE U-SEAL SEALER Part B (Cure) to three parts of FISHSTONE U-SEAL SEALER Part A (Resin) in an open container. Mix well (approximately 3 minutes) with Jiffy Mixer or other mechanical mixer until thoroughly mixed before using. For most consistent matting effect, let stand for 30 minutes after mixing for full induction. DO NOT mix more than can be used in a 2 hour period. FISHSTONE U-SEAL SEALER has no obvious end of pot life, therefore, do not apply beyond the 2 hour limit or a film with poor characteristics (e.g. Bubbling, foaming, blotchiness) may result. Clean up overspray and equipment before the FISHSTONE U-SEAL SEALER dries with mild soap & water.

*APPLICATION INSTRUCTIONS CONTINUED ON NEXT PAGE*



**APPLICATION:** FISHSTONE U-SEAL SEALER can be applied by good quality dense foam or microfiber roller for smooth surfaces, heavy nap (1/2" or 3/4") roller for rough surfaces (such as split face block). Material shall not be applied if surface or ambient temperature is below 45° F. or if the temperature is expected to fall below freezing (32° F.) within the 24 hour curing cycle. For adequate protection on porous surfaces, at least two coats should be applied. For best results, the second (or subsequent) coat should be applied when the previous coat is tack free and unable to leave fingerprint. During use and curing provide adequate ventilation.

Although this product can be applied full strength we find best results using a saturation/primer coat followed by multiple thin coats with less dilution for each coat. Follow mixing instructions above then after induction time dilute with appropriate parts clean water to 1 part sealer. If a more "natural color" appearance of the substrate is desired, FISHSTONE U-SEAL SEALER may be applied over Fishstone waterborne acrylic sealer. FISHSTONE U-SEAL SEALER has also shown compatibility with waterborne epoxy primers and sealers. Nevertheless, any combination of FISHSTONE U-SEAL SEALER with other coatings and sealers must be tested to guarantee compatibility and should be offered to the customer for approval.

- 1<sup>st</sup> coat (primer coat): dilute 5-7 parts clean water to 1 part fully induced sealer & Mix for an additional two minutes. Product is ready to use.
  - *This is the Saturation or Primer coat. Apply product to vertical edges first followed by top surface. Use a liberal amount. The idea here is to completely saturate the surface and allow the concrete to drink as much sealer as it can. This coat helps with adhesion and greatly improves long term durability. Using roller continue to move sealer around until substrate will no longer absorb new sealer. Using a dry or wrung out roller continue to go over surface removing excess sealer until all roller marks disappear. Any roller marks left at this state will be seen on final surface*
- 2<sup>nd</sup> coat: dilute 3 parts clean water to 1 part fully induced sealer & Mix for an additional two minutes. Product is ready to use.
  - *This is the first finished coat and you may decide to go right to a 2:1 (below) based upon your personal preference. Apply product to vertical edges first followed by top surface. This coat should not absorb into the surface but starting to build a thin coat over the primer coat. Using a dry or wrung out roller and minimal pressure continue to go over surface removing excess sealer until all roller marks and bubbles disappear. Any roller marks left at this state will be seen on final surface. A light sanding can be done to remove any imperfection of the sealer but be careful to not sand through to the raw concrete.*
- 3<sup>rd</sup> and subsequent coats can be applied with 2 parts clean water to 1 part fully induced sealer & Mix for an additional two minutes. Product is ready to use. Or full strength depending on desired results
  - *These are the build layers. The more layers applied the better the stain resistance. Usually around five total coats (including primer coat) results in good protection. Apply product to vertical edges first followed by top surface. This coat should not absorb into the surface but building a thin coat over the previous coat. Using a dry or wrung out roller and minimal pressure continue to go over surface removing excess sealer until all roller marks and bubbles disappear. A light sanding can be done to remove any imperfection of the sealer but be careful to not sand through to the raw concrete. Product can be used lightly in 24hrs with full cure in 7 days.*

**COVERAGE:** Will vary with porosity of substrate but will average 400 to 600 sq/ft (37-56 sq/m) per gallon. Do not over apply FISHSTONE U-SEAL SEALER; coverage for most surfaces should be at 400 – 600 sq/ft (37-56 sq/m) per gallon. If product is over applied (e.g. applied at a rate of 100 to 200 sq/ft per gallon) bubbling or foaming in the finished coat may occur.

**Warning:** Harmful if inhaled. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause damage to organs (lungs) through long or repeated exposure if inhaled.

**Wear respiratory protection, protective gloves, clothing, eye & face protection. Do not breathe mists, vapors or spray.**

Fishstone warrants this product to be of consistent quality. Fishstone warranty is limited to the replacement of product proven defective. The user assumes all other risks and liabilities resulting from the use of this product. If you have any questions, please call Fishstone at 815-276-0299



## **Test Data**

### General Notes:

- U-Seal is resistant to standing water, oils, mild solvents, mild acids & alkalis
- Individual testing is important due to different application techniques and substrates. Below are our own findings through our own in-house testing.

### 24 Hour chemical spot testing (In-house testing, after 72hrs cure at ambient temperature 68°F-75°F)

- |                        |           |
|------------------------|-----------|
| • Ethanol              | softens   |
| • Xylene               | softens   |
| • Mek                  | softens   |
| • Mineral Spirits      | no effect |
| • Gasoline             | no effect |
| • Kerosene             | no effect |
| • 5% Ammonia           | no effect |
| • 5% Hydrochloric acid | no effect |
| • 5% Sulfuric acid     | no effect |

### 24 Hour Stain spot testing (In-house testing, after 72hrs cure at ambient temperature 68°F-75°F)

- |                     |                  |
|---------------------|------------------|
| • Water             | no effect, beads |
| • Wine              | no effect        |
| • Tabasco hot sauce | very slight      |
| • Vinegar           | no effect        |
| • Ketchup           | no effect        |
| • Cola              | no effect        |
| • Yellow mustard    | very faint       |
| • Olive oil         | no effect        |

## **Food Safe**

U-Seal concrete Sealer is food safe after full cure. It does not emit exchange or degrade into biologically hostile chemistries after full cure (usually 5-7 days).



Useful coverage calculator (based upon full strength sealer)

Mils	Per U.S. Gallon		Per Liter	
	Sq. Ft.	M <sup>2</sup>	Sq. Ft.	M <sup>2</sup>
0.25	6,416.0	596.0	1,695.0	157.5
0.50	3,208.0	298.0	847.5	78.8
0.75	2,138.7	198.7	565.0	52.5
1.00	1,604.0	149.0	423.8	39.4
1.50	1,069.3	99.3	282.5	26.3
2.00	802.0	74.5	211.9	19.7
2.50	641.6	59.6	169.5	15.8
3.00	534.7	49.7	141.3	13.1
3.50	458.3	42.6	121.1	11.3
4.00	401.0	37.3	105.9	9.8
4.50	356.4	33.1	94.2	8.8
5.00	320.8	29.8	84.8	7.9
6.00	267.3	24.8	70.6	6.6
7.00	229.1	21.3	60.5	5.6
8.00	200.5	18.6	53.0	4.9
9.00	178.2	16.6	47.1	4.4
10.00	160.4	14.9	42.4	3.9