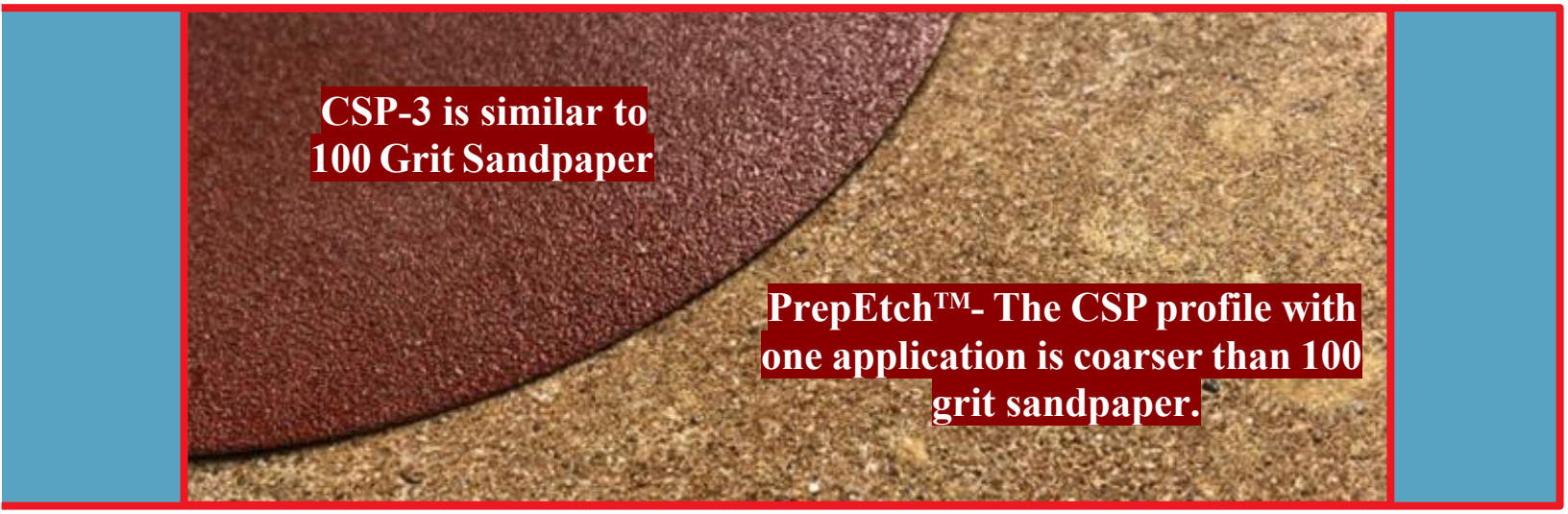
**TuffTex Materials**
2209 Donley Drive
Austin, TX 78758
Office: (512) 617-7334

***TuffTex* PrepEtch™** is a safe, non acid-based, biodegradable, and powerfully aggressive concrete etching and cement removal compound. **PrepEtch™** is specially formulated to provide a surface profile on both green and mature concrete. The profile achieved with **PrepEtch™** is better than hydrochloric, muriatic, or other acid, with hardly any odor; offering a more uniform and consistent depth of etch. **PrepEtch™** is also safer to use than acids and the waste residue is easily removed by rinsing with water. **PrepEtch™** provides an excellent profiling result with no dust as compared to grinding, sandblasting, or shot blasting. On most newer concrete, a **CSP 3** profile can be achieved with one application. **PrepEtch™ must be applied on dry surfaces.**



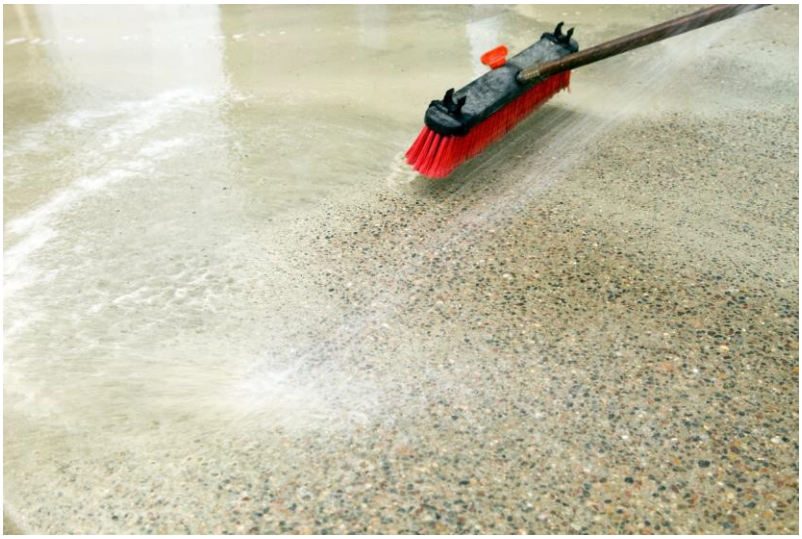

# PrepEtch™ Advantages

- Dissolves cement
- Removes grout
- Removes stucco
- Removes most rust stains
- Eliminates harsh etching chemicals
- Can be used on tools and equipment
- Biodegradable
- Non-Toxic
- Non-Fuming
- Non-hazardous
- Non-corrosive
- No/Low odor
- No neutralizing necessary

**PrepEtch™ will save you money while etching, removing cement, or removing concrete by being safe, cost effective, and productive to your operations.**

# Economical Alternative to Mechanical Abrasion

| | PrepEtch™ | MECHANICAL (Sandblasting, Scabblers, Scarifying, Grinding, Water Jetting) |
|---|---|---|
| Results | · Surface profile of CSP-3 with one application on most concrete | · Not uniform, very rough finish, typically inconsistent surface profile |
| Personnel | · No specialty contractor is necessary<br>· Most anyone can prepare and apply | · Specialty contractor, trained help |
| Equipment | · No special equipment needed | · Locating & prepping of expensive, specialized rental equipment |
| Labor | · No mobilization of special equipment or personnel necessary<br>· Simple, straightforward application procedures | · Mobilization and on/off load equipment, materials, & personnel<br>· Set up blasting operation<br>· Shield equipment |
| Productivity | · Productivity in surrounding areas continues as normal due to minimal hazards<br>· Process complete in minimal hours | · Activity in surrounding area halted<br>· Process consumes time, labor, & materials, reducing profits<br>· Once blasting & primer is completed, some outside activity can occur according to the Safe Plan |
| Clean Up | · Cleanup is simple: Water and sweeping | · Extensive dusting, shoveling, vacuuming, bagging, disposing |
| Safety | · Non-toxic | · Multiple hazards to prepare for, safety equipment to obtain |
| Environment | · No harmful waste generated, **non-toxic** | · Dispose of used materials (EPA concerns) |



**PrepEtch™ has been used as a concrete retarder for exposed aggregate!**

# No more dust, sweeping, vacuuming, tenting, venting, or extensive clean ups!

## No More Silicosis

## Equipment performance is a must. Remove concrete build up with PrepEtch™!

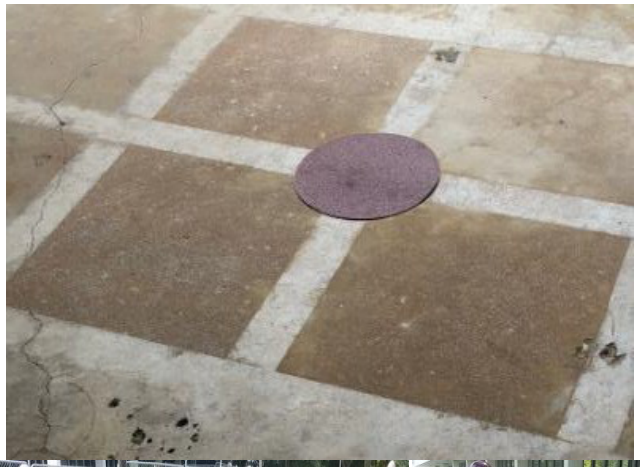
# What Is The Difference Between PrepEtch™ & Acid Etching?

**One of the most common treatments to etch concrete involves the use of citric, muriatic (hydrochloric), sulfuric, phosphoric, sulfamic, organic, or hydrofluoric acid.**

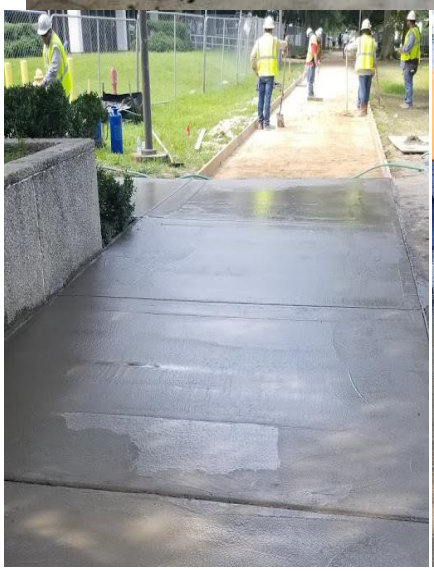
**Acid etching is the process of applying "Hazardous Acids" to a slab, then rinsing it off with water!**

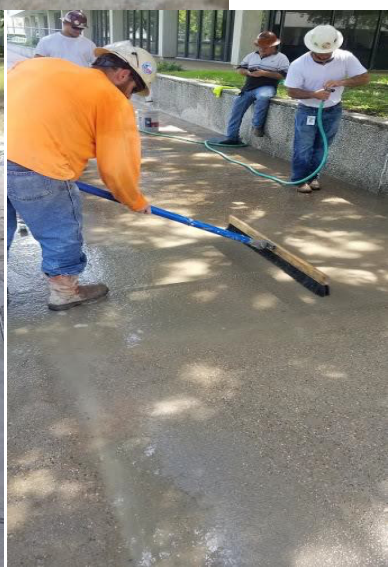
**Today's needs for low emissions and solvent free industrial, commercial and institutional resinous flooring systems tend to be much thicker, requiring a concrete profile of CSP-3 to CSP-5 for best bond and performance; this essentially renders acid etching obsolete.**

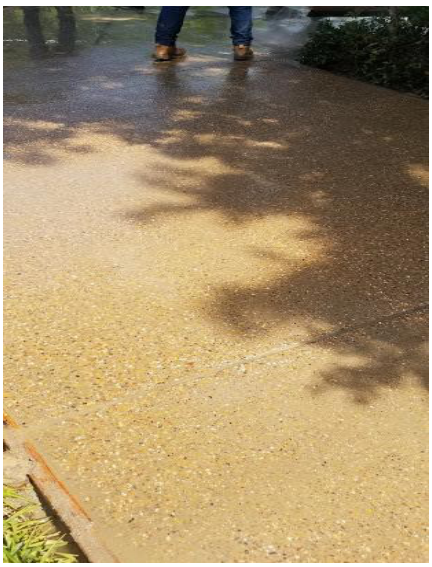
| PrepEtch | Muriatic & Most Acids |
|---|---|
| **1. Non-Polluting, Non-Toxic, Non-Corrosive.** | 1. Toxic, Corrosive to Skin, Eyes, Plants, Animals, Pollutes Streams |
| **2. Possible profile of up to CSP-5** | 2. Possible Profile of CSP-1 or CSP-2 |
| **3. Eco-friendly solution that requires no neutralizing and washes away with water.** | 3. Use and disposal is regulated due to environmental concerns |
| **4. No shipping restrictions.** | 4. Warehousing and shipping involves safety measures and paperwork |



**PrepEtch™ has been tested side by side many other "non harmful, environmentally safe" cleaners, profilers, etchers and has proven itself to be superior! This physical comparison shows side by side superior performance of PrepEtch™ to 8 other products.**







**PrepEtch™ gave an excellent, evenly exposed etch, on the freshly poured colored aggregate finish at the new NASA Historical Green Space at Space Center Houston! (Mockup surfaces were pretested to determine the square feet per gallon ratio required to achieve the depth of etch desired.)**

## Limitations

**PrepEtch™** is intended for bare concrete; all cementitious surfaces must be free of coatings, sealers and curing compounds. DO NOT use on Chrome Surfaces.

**PrepEtch™ is intended to be used as provided and NOT diluted.**

# PrepEtch Application Guide

## SURFACE PREPARATION:

IMPORTANT: The concrete must be sound and free of foreign material, including oil, grease, or other surface contaminants. Apply heavy duty detergent for any excessive oil **removal prior to PrepEtch™ application. Prep: Clean, Grind off and scrape off all Chalk** Lines, Mud/Caulking/Paint.

## APPLYING PrepEtch:

1. Shake **PrepEtch™** well before using.
2. **PrepEtch™** is intended to be used as provided and NOT diluted.
3. Apply with a Heavy-Duty Hand Sprayer or flood coat and squeegee. Stiff Applicator Brush or.
4. Completely saturate concrete with **PrepEtch™**. Surface will turn white with foam.
5. Brush product with stiff bristle broom. Cross hatch/brush in two directions..
6. Re-apply to reactivate as needed. Allow **PrepEtch™** to penetrate 25-30 minutes. Keep surface saturated.
7. Pressure wash with a minimum 3,500 PSI pressure washer.
8. Repeat as needed for additional profile.
9. Pressure wash and allow clean, etched concrete to completely dry before coating.
10. **PrepEtch™** will not harm paint, metal or wood, only Portland Cement.

Note: Product is best applied in the morning or when substrate is shaded. Hot decks will cause the product to flash and you will need to continue to apply more material to keep damp or install a 2nd coat.


**Concrete Surface Profiles as designated by ICRI (International Concrete Repair Institute)**

## COVERAGE:

**Coverage will vary with age and strengths of concrete**

CSP-1 Light Duty: ¼ - ½ gallon/100 ft² or 150 - 200 ft²/ gallon
CSP-2 Medium Duty: ⅔ - 1 gallon/100 ft² or 100 - 150 ft²/ gallon CSP-3
Heavy Duty: 1 - 2 gallon/100 ft² or 50 - 100 ft²/ gallon

# Safely Etch Concrete with PrepEtch™

Etching with **PrepEtch™** ensures that concrete provides an excellent surface for coatings to adhere. It is also an excellent choice when you are looking to remove efflorescence from concrete and masonry substrates.

Always WEAR GOGGLES, PROTECTIVE CLOTHING, RUBBER GLOVES, AND PROTECTIVE BOOTS when performing any construction cleaning or coating tasks.

Remove all furniture, equipment, and objects from the concrete floor you are going to be etching, sweep up or shop vacuum any dust and dirt.

Remove all oils and greases prior to etching. This can be done by cleansing with degreaser, laundry detergent, or Dawn concentrated dish soap.

Always test a small area to make sure the ratio of liquid to square foot of area is accurate for your desired effect. **PrepEtch™** will begin to bubble and react. If you don't see bubbles when **PrepEtch™** first comes into contact with the concrete the mixture has been diluted or is out of shelf life.

It is easiest to use a heavy duty sprayer or watering can to apply **PrepEtch™** to the floor. After spraying **PrepEtch™** on the floor you can use a squeegee, broom, or floor machine to spread and increase the action of the etching mixture. Remember that the floor needs to stay wet throughout the entire etching process.

After the **PrepEtch™** has been applied wait about 15-20 minutes for the floor to stop bubbling. Throughout this process the **PrepEtch™** is reacting with the floor, opening up the pores of the concrete preparing it to accept a coating or a sealer. If there are spots where the **PrepEtch™** is not reacting with the concrete there could be residual oil or grease left on the floor and you may need to use a floor grinder to prepare the floor in these areas. After etching action has stopped, simply hose down the areas treated.

## There is no need to neutralize the surface to reduce the pH of the concrete when using PrepEtch™.

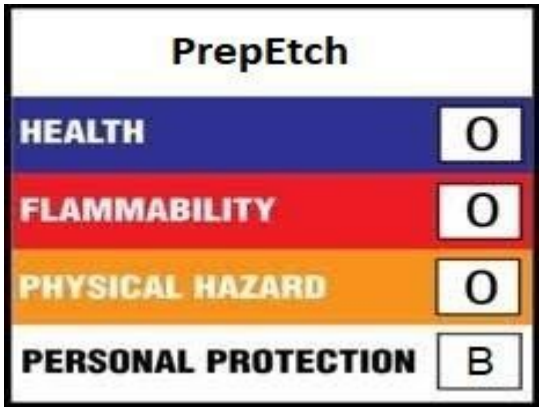
The concrete should now have a cleaner, brighter appearance and it should have the texture of medium grit sandpaper. Rinse the concrete and suck up the excess with a shop vacuum if required. If the concrete is not rinsed enough a white powdery residue will be left on the floor when it dries. This can be removed by rinsing the concrete again. If the concrete is not to the desired profile, simply reapply and repeat the processes for a deeper etch.

# Helpful Tips:

1. Wear protective clothing such as safety goggles, gloves, long sleeves, and closed toe shoes.
2. Use a plastic drop cloth to protect anything you don't want to get splashed.
3. Don't etch in weather below 50 °F.
4. After etching, make sure the floor has dried out before applying a concrete sealer or coating.

# Safety Reasons for Using PrepEtch™

1. Safer for the surrounding area being treated
2. No mobilization or demobilization
3. No eye injuries from flying sand
4. No medical issues from caustic materials
5. No sparks or fire hazards
6. No solvents
7. No sand in engine intake
8. No additional weight, ex. sand bags, air compressor and back-up
9. No hoses strung out all over etc.....




**PrepEtch™** carries a **triple-zero HMIS score**, is rated non-corrosive, non-fuming, 100% biodegradable, non-mutagenic to fish and wildlife. HMIS = **Hazardous Materials Identification System (HMIS)**

Everyone should always use personal protection (eyes, gloves) with anything other than water.

# PrepEtch FAQ's

**What is *Portland cement? Portland cement*** is the most common type of ***cement*** in general use around the world as a basic ingredient of concrete, mortar, stucco, and non-specialty grout. It was developed from other types of hydraulic lime in England in the mid 19th century, and usually originates from limestone. Materials that contain appropriate amounts of calcium compounds, silica, alumina and iron oxide are crushed and screened and placed in a rotating cement kiln. Ingredients used in this process are typically materials such as limestone, sandstone, marl, shale, iron, clay, and fly ash.

**How does PrepEtch™ work?** The effects of **PrepEtch™** are created by its two principal components: A blend of organic urea hydrochlorides (salts) and surfactants to arrest Portland cement and convert it to mush. This residue is easily washed and swept away.

**What protective equipment is required with PrepEtch™?** It's recommended that either safety glasses or goggles be worn along with latex gloves as it may cause eye or skin irritation. It is mild, but like all chemicals (paint included), exercising caution is recommended.

**Are vapors from PrepEtch™ harmful?** The vapors if any emitted from **PrepEtch™** are similar to latex paints and are not harmful, but it is always recommended that it be applied only in well ventilated areas.

**How do I prepare the surface for application?** Good surface preparation will enable the **PrepEtch™** to work effectively and leads to a high quality end result. All cementitious surfaces must be free of existing coatings, sealers or curing compounds. Test surface by applying a small amount of **PrepEtch™** to the surface. If a light foaming action is present, it is effectively beginning to clean and etch the surface. If no foaming action occurs, remove foreign material by stripping with applicable chemical or mechanical stripping methods.

**How is PrepEtch™ applied? PrepEtch™ can be applied** with a brush, roller, or hand pump sprayer. It can also be sprayed with airless or garden type pump sprayers.

**How much area will one gallon of PrepEtch™ cover?** One gallon can cover up to 200 square feet of concrete for an average profile of CSP 2-3 depending on concrete age and design mix.

**How many coats of PrepEtch™ should I apply?** Most applications require only one coat. Applying a second coat assures uniform coverage and desired profile.

**Can I apply PrepEtch™ over sealed or painted surfaces?** No, all cementitious surfaces must be free of existing coatings, sealers or curing compounds.

**Can PrepEtch™ be thinned? PrepEtch™ should not be diluted** and should be applied as it comes out of the container.

**How long does it take PrepEtch™ to react? PrepEtch™** will etch in approximately 20 minutes. Application of a second coating may be desired to attain a deeper profile.

**Can I apply a primer coat over PrepEtch™?** Yes, primers may be applied over **PrepEtch™** if a system calls for it, but is not required.

**Is it necessary to coat over PrepEtch™?** Although it's not required, aesthetically it is usually desired. However, any exposed aggregate type surface should be sealed with a proper concrete sealer. If your surface is to be exposed to extreme elements, it is highly recommended. Sealers will protect the qualities of the surface from adverse weather including rain, salt mist and direct sunlight.

**What type of sealer or coating should I use to cover the PrepEtch™? TuffTex** has a vast array of sealers, coatings, and decorative finishes for any need. Please contact **TuffTex** sales (512-617-7334) for information on the best material for your project!

**Can I use leftover PrepEtch™ after I've opened the container. Yes, it has a shelf life of one year.**

**How should I clean my application equipment after applying PrepEtch™?** Simply use soap and water for clean-up!

**Is PrepEtch™ approved by the FDA or USDA?** No, **PrepEtch™** shouldn't be placed in contact with foods or human water supply.

**How does PrepEtch™ need to be stored?** It's best to store **PrepEtch™** out of direct sunlight. Do not allow to freeze and avoid temperatures above 100F.

**What is the shelf life for PrepEtch™? PrepEtch™ has a shelf life of 24 months.**

# PrepEtch™ Concrete Profiler

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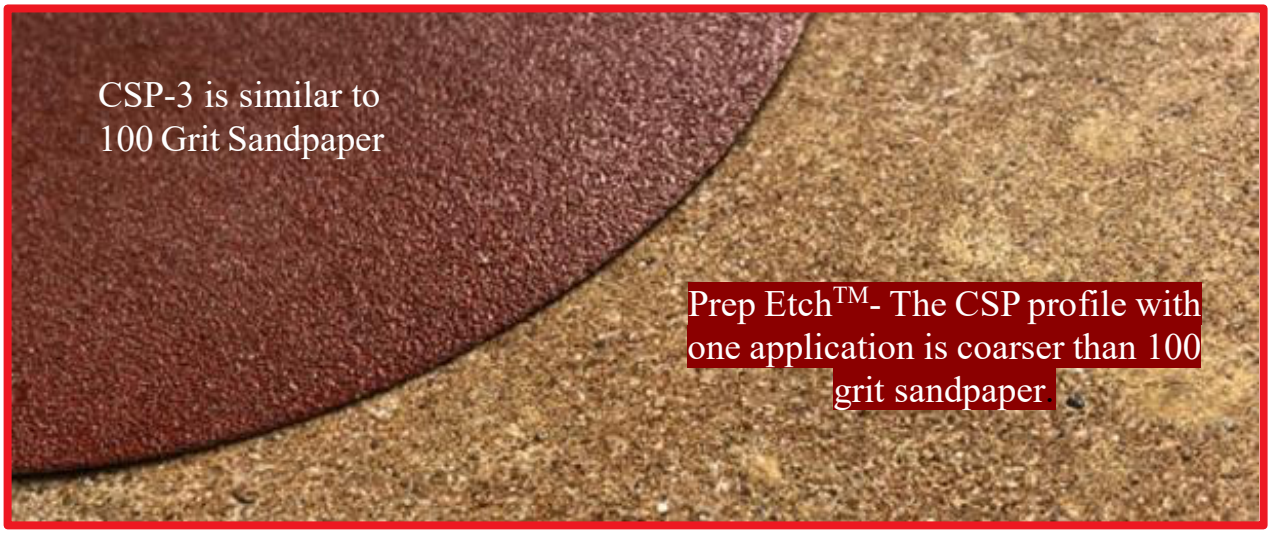
## PRODUCT INFORMATION SHEET




### PRODUCT DESCRIPTION

**PrepEtch™** is a ready to use, environmentally friendly, biodegradable, concrete build up reducer and profiling liquid compound. An alternate to muriatic and phosphoric acid etching chemical treatments.
**PrepEtch™** avoids the damaging effects of sandblasting, shot blasting, grinding or chipping concrete. Non-corrosive. No neutralizing required.
**PrepEtch™** dissolves concrete and mortar for easier cleaning. Achieve an ICRI – CSP 3 profile with one application.
**PrepEtch™** will safely prep your concrete floor or deck to receive a protective coating.

### ADVANTAGES

- Safe to use.
- Rust stain remover
- Non-Hazardous and Biodegradable.
- Converts existing rust and prevents new oxidation
- Will not damage most painted surfaces
- Will not damage paint, metal or wood.
- Will etch lightly, medium.or deep.
- Soften concrete build-up for easy removal.
- Safe, no solvents, and low odors.
- Eliminates hazardous etching chemicals.
- Removes concrete build-up on tools & equipment.
- Eliminates sand blasting, shot blasting & grinding.

### Uses

- Preparation and profiling of concrete for coating or penetrating sealer.
- Interior and exterior concrete surfaces.
- Concrete roof decks and balconies
- Pool decks and breezeways.
- Warehouse floors and garage floors
- Interior parking garage floors
- Parking decks and sidewalks
- Cleaning concrete forms and mixers.
- Cleaning concrete residue on tools.

### PRODUCT CHARACTERISTICS

| | |
|---|---|
| **Appearance:** | milky, white liquid |
| **SpGr / WPG:** | 1.11 / 9.27 lbs |
| **VOC:** | None |
| **Coverage:** | 2.5-5 $m^2$ per liter<br>100-200 sq ft per gal |
| **Viscosity:** | cps 90 |
| **Flash Point**: | 65°F (18°C) |

### Packaging

- 1 gallon (3.7854 liters) (4 bottles (15.14 l) per case)
- 5 gallons (18.93 liters per keg)
- 55 gallons drum (208 Liters)
- 275 gallons tote (1041 liters)

## COVERAGE GUIDE

**Coverage's vary with age and strength of concrete.**

**CSP 1** Light Duty: 1/4-1/2 (0.14-0.20 liters/sqm) gallon/100 sqft or 150 – 200 sqft/gallon

**CSP2** Medium Duty 2/3-1 (0.30--0.41 liters/sqm) gallon/100 sqft or 100 – 150 sqft/gallon

**CSP3** Heavy Duty: 1-2 (0.41-0.80 liters/sqm) gallon/100 sqft or 50 – 100 sqft/gallon

## APPLICATION

**SURFACE PREPARATION:**

1. Concrete must be sound and free of all foreign material, including oil, grease, dust, laitance or other surface contaminants. Use a heavy degreaser for any areas of excessive oil or grease.

2. **PrepEtch™** must be applied on dry surface. **PrepEtch™** can be applied via heavy duty type pump sprayer and agitated with a bristle broom for deeper penetration and etching.

**APPLYING PrepEtch™:**

1. **PrepEtch™** is intended to be used as provided and NOT diluted.
2. Apply with a Heavy-Duty Hand Sprayer or flood coat and squeegee. Stiff Applicator Brush or.
3. Completely saturate concrete with **PrepEtch™**. Surface will turn white with foam.
4. Brush product with stiff bristle broom. Cross hatch/brush in two directions..
5. Re-apply to reactivate as needed. Allow **PrepEtch™** to penetrate 25-30 minutes. Keep surface saturated.
6. Pressure wash with a minimum 3,500 PSI (241 bars) pressure washer.
7. Repeat as needed for additional profile.
8. Pressure wash and allow clean, etched concrete to completely dry before coating.
9. **PrepEtch™** will not harm paint, metal or wood, only Portland Cement.

## CLEANUP

All equipment, brushes, rollers, and sprayers should be cleaned immediately after job is completed. Clean with fresh water. When cleaning tools and equipment, concrete will soften and release from surface after approximately 20 - 30 minutes. Additional soak time depends on the thickness of material being removed.

## STORAGE

Store in accordance with instructions, with seals and labels intact and legible. 24 months shelf life is expected for products stored between 40°F (4.5°C) - 90°F (35°C).

**Do not allow products to freeze.**

## Shelf Life

Shelf life of properly stored, unopened containers is 24 months

## Limitations

Surface and ambient temperature must be a minimum of 40°F (5°C) Do not thin with water or solvents. Do not reuse empty containers. Rinse empty containers and replace cap before discarding. **PrepEtch™** is intended for use by licensed contractors and installers, experienced and trained in the safe use of this product.

## WARRANTY

NovaTuff Coatings warrants our products to be free of manufacturing defects in accord with applicable quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by NovaTuff Coatings.

NovaTuff Coatings makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. NovaTuff Coatings assumes no responsibilities for injury from the use of this product

NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY NOVATUFF COATINGS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## DISCLAIMER

Refer to the MSDS sheet before use. The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of NovaTuff Coatings. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Published technical data and instructions are subject to change without notice. Contact your local Nova-Tuff distributor or technical representative for additional technical data and instructions.

**OSHA Status:** This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is not considered to be a hazardous chemical under that standard.

**Disclaimer:** The information and recommendations contained herein are based on data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein.