POLY-TUFF SYSTEMS INTERNATIONAL
HIGHWAY DIVISION

TuffProtect™ 40

40% Solids VOC Compliant Penetrating Silane

1.01 DESCRIPTION

TuffProtect™ 40 is a 40% solids, solvent based, silane sealer. This clear, penetrating, breathable, water repellent is designed for use on interior and exterior above-grade concrete or masonry surfaces. TuffProtect™ 40 penetrates the surface and bonds directly with the substrate, which results in a surface that is highly resistant to both moisture and salt. TuffProtect™ 40 helps protect against the corrosive effects of de-icing salts, moisture, and weathering to prevent spalling and deterioration of concrete structures. Please use the correct product grade that complies with VOC regulations as per federal, state, county and city regulations/codes at the place of installation of product.

1.02 FEATURES

- Colorless and Non-Yellowing
- Dries Tack-Free and Skid Resistant
- Excellent Water Repellency
- Fast Drying in Cooler Temperature
- New As Well as Old Concrete Surfaces
- Provides Excellent Chloride Screen
- Reduces the Effects of Freeze-Thaw Cycling

1.03 USES

- Bridges and Ramps
- Concrete and Masonry Surfaces
- Parking Structures
- Pavements and Marine Platforms
- Seals and Protect Woods Finishes

1.04 TECHNICAL DATA

Meets and surpasses Fed. Spec SS-W-110 b(GSA-FSS) Performance

1.05 PACKAGING

5 gallon (19 liters) pail
55 gallon (208 liters) drum
275 gallon (1041 liters) tote

1.06 COLOR

Clear with fugitive dye

1.07 COVERAGE

The average rate is determined by surface porosity:

Porous surfaces:	125-175 sqft gal	(3.07-4.30 sqm/liter)
Broom finish:	200-300 sqft/gal	(4.91-7.36 sqm/liter)
Smooth concrete:	250-350 sqft/gal	(6.14-8.59 sqm/liter)

1.08 PREPARATION

Old Concrete and Masonry: Remove any previously applied sealers, dust, dirt, tar, oil, etc. with pressure wash and PSI's **EnviroClean™ Citrus** Cleaner or use other appropriate measures to properly prepare the substrate. Membranes of any kind must be removed. Substrates must be absorptive to allow penetration of the **TuffProtect™ 40**.

New Concrete: Surface should be well cured (28-day minimum) using water, wet burlap, polyethylene curing paper, or dissipating resin-based curing compound. Surface must be free of all curing residue, dust, debris, oil and other contaminants. Substrates must be absorptive to allow penetration of the **TuffProtect™ 40**. All joint sealant, caulks and patching should be in place before applying.

1.09 APPLICATION

Horizontal Surfaces: Flood surfaces with **TuffProtect™ 40** using a low-pressure sprayer (airless sprayer 10 to 20 psi), roller, brush or broom. Broom or squeegee around for even distribution. Let the surface absorb the **TuffProtect™ 40**. An extremely porous surface may require two coats if applied on a "wet on wet" procedure. Distribute any puddles or free-standing material.

Vertical Surfaces: Apply with spray or roller at the rates indicated in the coverage guide.

1.10 CURING/DRYING TIME

The cure time is 2-4 hours at 70°F (21°C) and 50% relative humidity. Cooler temperatures or higher relative humidity can extend the drying time.

1.11 CLEAN UP

Tools and Equipment: Flush and clean with water immediately after use. Use PSI's **Solvent 100** or other cleaning solvents for sprayers to remove cured or residual material.

1.12 STORAGE AND SHELF LIFE

The material should be stored between 40–95°F (4–35°C) in a cool, dry area away from direct sunlight. The shelf life of properly stored, unopened containers is 24 months from the date of manufacture. An excessive temperature differential and/or high humidity can shorten the shelf life expectancy.

1.13 LIMITATIONS

Combustible liquid. Keep Away from Open Flame. Not suitable for asphaltic surfaces. Protect glass, metal and other non-masonry surfaces from over spray. Do not use if air, product or surface temperatures are below 20°F or above 90°F. Do not use over a curing membrane. Initial reaction will be in 16 to 24 hours. Treated areas may be returned to

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service once the product has penetrated and the surface is dry. Do not over apply. Substrates should be saturated with the material, but puddling should be avoided. Do not apply if precipitation is expected within four hours, or if rain has preceded the application in the past 24 hours. **TuffProtect™ 40** is not formulated for below grade waterproofing. Not effective for some stone surfaces. Over application may cause a slight darkening of the surface. Do not apply in high winds. Do not dilute. Wear protective gloves and goggles. Avoid prolonged skin contact. Allow NO contact with foodstuffs. Dispose of waste material in accordance with federal, state and local requirements. DO NOT EXPOSE TO OR APPLY NEAR FIRE OR FLAMES. FOR WELL VENTILATED OR EXTERIOR USE ONLY!

READ SDS PRIOR TO USING PRODUCT. KEEP OUT OF THE REACH OF CHILDREN.

1.14 PHYSICALS	
Composition	Organofunctional Silane
Active Silane Content	40% min. by wt.
Chloride Screened	96%
VOC	< 350 g/l
Content (EPA Method 24)	Less than 250 grams/liter
Fugitive Dye for visual inspection	
Weight / Gal	6.88 lbs/gal
Repellency Factor	98.6%
ASTM C-642, Water Absorption	0.364%
ASTM C-672, Scaling Resistance	No Scaling 125 cycles
Flash Point (ASTM D3278-82)	140°F (60°F)

Please read all information in the General & Safety Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. PSI Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with PSI Products or have undergone training in application of PSI Products. Published technical data and instructions are subject to change without notice. Contact your local PSI representative or visit our website for current technical data, instructions, and project specific recommendations.

LIMITED WARRANTY

PSI warrants its products to be free of manufacturing defects and that they will meet PSI current published physical and chemical properties. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by PSI of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. PSI shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. PSI shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. PSI reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and PSI makes no claim that these tests or any other tests, accurately represent all environments.