

TuffGuard®

TECHNICAL BULLETIN



1-Part Epoxy/Acrylic Maintenance Coating

MADE IN U.S.A.

PRODUCT DESCRIPTION:

ITEM NO. 4600T, 4600S

TUFFGUARD is a one component epoxy fortified acrylic blend, formulated to create a very tough and durable finish for all porous interior/exterior concrete, masonry, and wood surfaces. **TUFFGUARD** displays high resistance to scuffing, peeling, and fading. **TUFFGUARD** is also highly resistant to UV rays, water and mildew.

SURFACE CONDITION / PREPARATION:

The successful performance of any floor coating depends on the thoroughness of the surface preparation. The surface must be dry (wood < 13% moisture; cement < 15% moisture) and clean, free from all adhesion affecting contaminants like dirt, dust, oil, grease, wax, loose materials, etc. Fill all voids, cracks, joints, bee holes, etc large than 1/16" with paintable elastomeric caulk.

UNPAINTED CONCRETE PREPARATION:

- Clean surfaces thoroughly ensuring all adhesion affecting contaminants (ex. dirt, oils, greases, etc.) have been completely removed. Pay special attention to areas where build-ups of dirt, grease, and oil exist. After cleaning rinse the surface thoroughly and allow it to dry to <15% moisture before coating.
- Level all protrusions and fill all gaps, cracks, seams, holes, cavities, etc. that are larger than a hairline (~1/16") with the proper paintable patching compound.
- The surface must be unsealed and porous displaying a 120 grit surface profile or rougher. Etching, grinding, blasting or priming are solutions to smooth floors.
- Conduct a test patch and adhesion testing. If adhesion is not sound, we recommend testing the **MONOBOND** primer.
- If hydrostatic pressure is present make sure to identify and correct the source.
- Make sure the concrete is cured for 28 days.

PREVIOUSLY PAINTED CONCRETE PREPARATION:

- Remove all loose, peeling, and poorly bonded paint.
- Glossy surfaces should be sanded to a rough finish.
- Remove all chlorinated rubber and hydrocarbon finishes (oil-base/epoxy/urethane) by sandblasting or prime with **MONOCHEM 21**.
- Clean surfaces thoroughly ensuring all adhesion affecting contaminants (ex. dirt, oils, greases, etc.) have been completely removed. Pay special attention to areas where build-ups of dirt, grease, and oil exist. After cleaning rinse the surface thoroughly and allow it to dry to <15% moisture before coating.
- Conduct a test patch and adhesion testing. If adhesion is not sound, we recommend **MONOBOND** urethane-modified acrylic high bonding primer.

LEED CREDITS

TuffGuard qualifies for earning LEED® credits for Indoor Environmental Quality, EQ 4.2 Low-Emitting Materials, based on low contribution of VOC.

TECHNICAL DATA:

Composition	Modified Acrylic/Epoxy Resin
Solids by Weight Smooth WB (4650S).....	41% ±2%
Solids by Weight Smooth CB (4600S).....	38% ±2%
Solids by Weight Non-Skid WB (4650T).....	56% ±2%
Solids by Weight Non-Skid CB (4600T).....	52% ±2%
Finish	Smooth & Non-Skid, Low Gloss
Viscosity.....	85-95 Ku
Weight per Gallon (Smooth).....	9.50 Lbs
Weight per Gallon (Non-Skid).....	11.00 Lbs
VOC Level.....	< 50 g/L
Coefficient of friction (Non-Slip Property) Per ASTM C1028.....	
.....	Wet: 0.69; Dry 0.86
Shelf Life.....	3 years. Protect from freezing

WOOD SURFACE PREPARATION:

- All wood surfaces should be sanded to a rough finish to provide a good bond between the substrate and **TUFFGUARD**.
- The moisture content must be 13% or lower prior to application.
- Seal all weather exposed sides (areas between the planks and underside if applicable) of the wood to prevent moisture penetration and hydrostatic pressure.
- Fill in the gaps between the planks and tongue and groove with a paintable elastomeric caulk to protect against water creating hydrostatic pressure. If the weather exposed gaps and underside of the deck are sealed, no caulking is required.
- Woods containing tannin acid (pine, cedar, redwood) require a premium grade stain blocker/primer to stop the bleeding prior to application. **TUFFGUARD** will not stop tannin acid bleeding from wood.

TINTING:

TUFFGUARD is packaged in a clear and white base and can be tinted to any color using Universal Colorants.

Clear Base: Short-Fill 12 ounces per gallon.

White Base: Short-Fill 8 ounces per gallon.

4600S: TuffGuard Smooth Clear Base

4650S: TuffGuard Smooth White Base

4600T: TuffGuard Textured Clear Base

4650T: TuffGuard Textured White Base

SAFETY INFORMATION:

Monopole Inc. recommends the use of aggregates for skid resistance, in all of its floor coatings that may be exposed to wet, oily or greasy conditions. The type of activity on the floor surface may determine the degree of slip resistance required for a specific area. Monopole Inc. will not be responsible for injury caused in a slip or fall situation. It is the end users responsibility to determine the suitability and safety of our coatings for their particular use and application.

APPLICATION:

Apply only when surface temperature and surrounding air is between 50°F to 90°F. Use a 1/2" nap roller for rough or textured surfaces, 3/8" nap roller for broom-finish surface, and 1/4" nap roller for smooth-troweled surface. **TUFFGUARD** can also be



MONOPOLE INC.
Manufacturer of
U.S. SPECIALTY COATINGS

4661 Alger Street • Los Angeles, CA 90039

Tel: 818-500-8585 • Fax: 818-502-0818

www.monopoleinc.com • Email: info@monopoleinc.com

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applied using a nylon-polyester brush or spray equipment. **TUFFGUARD** textured should be applied using a short nap roller (1/4 - 3/8"). Apply two coats and allow two to four hours between coats.

COVERAGE:

SMOOTH FINISH: 225 to 300 sq/ft per gallon.

NON-SKID FINISH: 125-150 sq/ft per gallon.

Two Coats Required.

DRY TIME:

The dry times below are approximations and may vary due to temperature and humidity levels.

Tack Free: 1-2 Hours

Recoat: 2-4 Hours

Light Foot Traffic: 8 Hours

Moderate to Normal Foot Traffic: 24 Hours

Furniture Exposure: 3-4 Days

Allow 7 Days cure before washing the surface

WHEN NOT TO USE TUFFGUARD:

- Do not apply over previously sealed surfaces.
- Do not apply over poorly-bonded paint.
- Do not apply if moisture in the substrate is higher than 15%.
- Do not apply to a poorly cured, dusty or contaminated concrete.
- Do not apply to surfaces exhibiting hydrostatic pressure.
- Do not apply if surface temperature is over 90°F. or below 55°F.
- Do not apply if surface pH level is above 9.
- Do not apply in windy conditions or if rain is expected within 24 hours.
- Do not apply to unsound substrates.

LIMITATIONS:

•For increased durability of **TUFFGUARD** it is very important to avoid long term ponding water on the coated surface. This can prematurely damage the coating.

•**TUFFGUARD** will not form a water-proofing membrane and does not seal inaccessible areas. It will not bridge cracks, fill large pores or compensate for flawed construction.

CLEAN-UP:

Clean tools and equipment with warm soap and water immediately after use. Dried material on tools or from overspray, drips or spatters will not be easily removed if allowed to dry. To remove dried coatings, use a compliant lacquer thinner.

FIRST AID:

Eye Contact- Flush eyes with fresh water for at least 15 minutes. Call a physician.

Skin Contact - Wash with soap and water.

Inhalation - Get fresh air if affected by vapor or spray mist.

Be sure to provide adequate ventilation in enclosed areas. Use of an approved respirator is recommended.

Ingestion - Do not induce vomiting. Call a physician immediately.

ENVIRONMENTAL NOTE:

This product does not contain the following: Lead, Mercury or Solvents. Some distributors may add minor amounts of VOC when tinting.

WARRANTY INFORMATION: MONOPOLE believes that the information in this publication is an accurate description of the typical characteristics and/or uses of the product or products. It is your responsibility to thoroughly test the product in your specific application to determine its safety and performance capabilities. Since use of this product is beyond our control, MONOPOLE, INC. cannot assume any risk or liability for results obtained when not used according to our specifications and directions. Unless MONOPOLE provides a specifically written statement of fitness for a particular use, MONOPOLE'S sole warranty is that the product will meet its current sales specifications. MONOPOLE disclaims any other expressed or implied warranties, including the warranty of merchantability and fitness for use. Your exclusive remedy and MONOPOLE'S sole liability for breach of warranty is limited to a refund of the purchase price or replacement of any product proven to be defective. In no event shall the seller be liable for any loss of profits or other consequential damages, including labor charges.