



Level Set® Wear Topping

1. PRODUCT NAME

TEC® Level Set® Wear Topping
(054/057/058)

2. MANUFACTURER

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3. DESCRIPTION

TEC® Level Set® Wear Topping is a premium, calcium aluminate cement-based, high strength topping designed for use in malls, retail establishments, lobbies, high end hotels, light manufacturing and warehouses, where a hard, flat, smooth surface is desired. Also used for industrial applications subject to constant foot and vehicle traffic, countertops and to correct imperfections in new construction.

Note: If the surface will be polished, use the TEC® Level Set® Epoxy Primer before installing Level Set® Wear Topping. When surface will not be polished, all other substrates must be primed with TEC® Multipurpose Primer before installing Level Set® Wear Topping.

Key Features and Benefits

- Rapid setting for quick return to service
- Accepts foot traffic in 2-3 hours and rubber wheel traffic within 48 hours
- Ultra-smooth, cured surface with 6000 psi (42.1 MPa)
- Accepts stains, sealers and coatings within 24 hours
- Integral colorant can be added at the time of mixing
- Single lift applications from 1/4"-2" (6-50 mm) neat; can be extended to 5" (127 mm) with appropriate aggregate
- Barrel or pump in place
- Mold and mildew resistant
- Contributes to LEED® project points
- VOC 0

Packaging

50 lb. moisture-resistant bags (22.68 kg)
054 Bright White
057 White
058 Gray

Product #7160184813
Product #7160334813
Product #7160844813

Coverage

Coverages shown are approximate. Actual coverages may vary according to substrate type, surface texture and application method. Yield: 0.47 ft³/bag (0.013 m³/bag).

Application Thickness	Approximate Coverage per 50 lbs. (22.68 kg)
1/4" (6 mm)	23 sq. ft. (2.14 m²)
1/2" (12 mm)	11.5 sq. ft. (1.07 m²)
1" (25 mm)	5.6 sq. ft. (0.52 m²)

Suitable Substrates

When properly prepared, suitable substrates include:

- Concrete

Substrate Preparation

All materials should be stored at 40°F (4°C) to 80°F (27°C) 24 hours prior to installation. Clean area and remove all unsound concrete, grease, oil, paint and any other foreign materials that will inhibit adhesion. Substrates must be stable, solid and structurally sound. The concrete surface must be mechanically profiled by shot blasting, sand blasting or scarifying to achieve an ICRI CSP 3 to 5.

After cleaning and profiling test the substrate for moisture content. The substrate relative humidity (RH) must be ≤ 90% when tested per ASTM F2170. Use TEC® LiquiDam™ Penetrating Moisture Vapor Barrier to bring the moisture content within specified levels.

Repair deep areas, holes and non-moving cracks with suitable TEC® surface preparation products (Feather Edge Skim Coat, PerfectFinish™, VersaPatch®, Fast-Set Deep Patch) prior to application, and allow curing for a minimum of 3 hours. The direct tensile bond strength of the substrate must be > 72 psi (0.5 MPa) when tested per ASTM C1583. If the direct tensile bond strength is < 72 psi (0.5 MPa), the substrate surface will need to be mechanically prepared, i.e. shot blasted, scarified or similar to achieve a sound surface. Concrete that has been power troweled must be tested to verify surface strength and adhesion. **If the surface will be polished, use the TEC® Level Set® Epoxy Primer before installing Level Set® Wear Topping. When surface will not be polished, all other substrates must be primed with TEC® Multipurpose Primer before installing Level Set® Wear Topping.** See Primer label for application instructions.

Isolate, using foam tape or caulking, all perimeters and sharp corners such as column bases, pedestals, supports, etc. Install a bond breaker where vertical surfaces meet the new topping such as a self-adhering, minimum 1/4" (6 mm), foam tape or similar product. For installations over other substrates, contact TEC® Technical Services.

NOTE: It is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

Storage

Store in a cool, dry area away from direct sunlight. Do not store open containers.

Shelf Life

Maximum of 1 year from date of manufacture in unopened package.

Limitations

- Do not use for exterior applications.
- Do not apply with a sprayer.
- Do not install over dimensionally unstable substrates such as gypsum, gypsum-based patching compounds, particle board, luan, asbestos or chip board.
- Do not install where steel, small or hard plastic wheeled traffic is expected to be used, as indentations can be expected.
- Do not subject to heavy duty manufacturing or chemical environments where high performance industrial toppings are being used.
- Do not install where sharp or heavy metal objects will be dragged over the floor as it may cause damage.
- Do not overwater, retemper or mix with other additives.
- Do not apply stains without first doing a mockup to test compatibility.
- When forklifts, pallet trucks or other rubber-wheeled vehicles are expected to be used, wear topping must be between 1/2" and 2" thick.

Cautions

Read complete cautionary information printed on product container prior to use. For medical emergency information, call 1-888-853-1758.

This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered TEC® brand product(s) under normal environmental and working conditions. Because each project is different, H.B. Fuller Construction Products Inc. cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

4. TECHNICAL DATA

Level Set® Wear Topping (054/057/058)		
Description	Standard	Typical Results
28 Day Compressive Strength	ASTM C109	> 6,000 psi (42.1 MPa)
28 Day Flexural Strength	ASTM C348	1,200 psi (8.3 MPa)
Set Time	ASTM C191	80-140 minutes
Flammability Ignition Flame Propagation Distance Avg. Critical Radiant Flux (CRF) Delamination / Warpage	ASTM E648	None None > 1.1 W / cm ² None

Greater than: > Greater than or equal to: ≥ Less than: < Less than or equal to: ≤

Note: Test results obtained under controlled laboratory conditions at 72°F (22°C) and 50% relative humidity. Reasonable variations can occur due to atmospheric and job site conditions.

Physical Properties

Description	
Physical State	Dry powder
Color	Bright White, White, or Gray
Yield	0.47 ft ³ /bag (0.013 m ³ /bag)
Working Time	25-35 minutes
pH	11
Storage	Store in cool, dry area away from direct sunlight. Do not store open containers.
Shelf Life	Maximum 1 year from date of manufacture in properly stored, unopened package.

5. INSTALLATION INSTRUCTIONS

Priming

When surface will not be polished, TEC® Multipurpose Primer must be applied over the entire substrate leaving no bare spots, puddles or excess primer. Do not apply over standing water. For standard concrete use: TEC® Multipurpose Primer to water dilution rate of 1:1. For highly porous concrete, 2 coats of TEC® Multipurpose Primer may be necessary.

- First Coat: Use a primer to water dilution rate of 1:3
- Second Coat: Use a primer to water dilution rate of 1:1
- For non-porous substrates and tight concrete: Use full strength

Allow the primer to dry to a tacky translucent film with no milky wet spots, typically 1 - 3 hours. If the primer turns clear within 30 minutes of application the substrate is highly porous and requires a second coat. TEC® Multipurpose Primer must be completely dry before installing Level Set® Wear Topping. Primer must be reapplied if not covered with Level Set® Wear Topping within 24 hours. Protect primed substrate from foot traffic.

If the surface will be polished, use the TEC® Level Set® Epoxy Primer before installing Level Set® Wear Topping. Refer to the TEC® Level Set® Epoxy Primer Product Data Sheet.

NOTE: Reference either the TEC® Multipurpose Primer label, TEC® Level Set® Epoxy Primer label, or Product Data Sheets on tecspecialty.com for more information.

Mixing

For barrel mixing: Mix 2 bags of Level Set® Wear Topping at a time. In a clean 20-25 gallon (76-95 L) container add 5 qts. (4.7 L) of clean, cool potable water for EACH 50 lbs. (22.68 kg) bag. Next add the Level Set® Wear Topping, while mixing at full speed using a paddle mixer attached to a heavy-duty ½" (12 mm) drill (min. 650 rpm). Do not overwater. Mix completely for a minimum of 2 minutes until lump free, adding no additional water. Overwatering or over mixing will affect strength, surface abrasion resistance and may cause cracking or pinholes. This is indicated by settling of the sand or foam formation on the surface. It is recommended that 2 mixing drums be used simultaneously, mixing in one and pouring with the other to maximize productivity. Immediately clean all mixing equipment thoroughly with water to avoid hardened product in subsequent batches.

For applications utilizing a batch mixer and pump: Pump and mixer must be in good working order before proceeding. Follow manufacturer instructions for setup and maintenance.

Use 5 qts. (4.7 L) of water per bag. Do not overwater. Minimum of 50 ft. (15.24 m) of hose is required. Use a "sock" at the end of the hose to catch all unmixed material. Test the mixed material periodically from the pump to ensure suitable mix and flow prior to general application.

For applications utilizing a continuous mixer and pump: Pressure test rotor stator for proper mixing. Adjust the water level to a maximum of 5 qts. (4.7 L) of water per bag. Do not overwater. Minimum of 100 ft. (30.48 m) of hose is required. Use a mesh "sock" at the end of the hose to catch all unmixed material. Test the mixed material periodically from the pump to ensure suitable mix and flow prior to general application.

Application

Apply when air and substrate temperature is between 40°F (4°C) and 100°F (38°C). For applications outside this range of temperatures, contact TEC® Technical Services. Close all doors, windows and turn off HVAC to prevent drafts. Pour or pump the blended Level Set® Wear Topping onto the floor and disperse with a gauge rake followed by smoothing the material with a surface smoother. Use cleated shoes to avoid leaving marks. Optimum results can be obtained by providing a continuous wet flow throughout the placement. Level Set® Wear Topping will level itself for 20 minutes at 70°F (21°C). No troweling is needed. Temperature and humidity will affect flow, working time and set time. Avoid walking on Level Set® Wear Topping until it hardens, typically 2-3 hours.

Level Set® Wear Topping will accept stains, water-based sealers and coatings in 24 hours. The surface of Level Set® Wear Topping must always be protected with a coating or sealer. Since sealers and coatings vary, always do a test area, contacting the supplier for specific application directions.

Increased thickness: For installations from 2"-5" (50 mm-127 mm), Level Set® Wear Topping can be extended with 15 lbs. (6.8 kg) of clean washed ⅜" (9 mm) pea gravel per 50 lbs. (22.68 kg) bag. If the aggregate is wet, less water will be required to prevent over watering the Level Set® Wear Topping. Adding aggregate will decrease the workability and may require the application of a finish coat to obtain a smooth surface finish. Allow initial extended application to dry for a minimum of 16 hours followed by the application of the TEC® Multipurpose Primer mixed 1:1 with water. After primer is dry the Level Set® Wear Topping can be applied. When extending with pea gravel, prime using TEC® Level Set® Epoxy Primer. An additional layer of wear topping may be required to smooth out the surface.

NOTE: TEC® Level Set® Wear Topping will not correct or compensate for a structurally defective substrate. Faults in the substrate can appear in the topping. The use of alkali resistant glass fabric or galvanized metal reinforcing (Federal Specification QQL 101C) can be helpful in reducing reflective cracking.

Polishing of Level Set® Wear Topping

TEC® Level Set® Epoxy Primer is required for use as a primer for Level Set® Wear Topping that is to be polished. When polishing the Level Set® Wear Topping, follow instructions laid out by the concrete polishing equipment manufacturers.

Clean-up

While material is still fresh, clean tools, hands and equipment with warm soapy water.

6. AVAILABILITY

TEC® Premium Tile and Stone Installation Products are available nationwide.

To locate TEC® products in your area, please contact:

Phone: 800-832-9002

Website: tecspecialty.com

7. LIMITED WARRANTY

The product(s) covered by this Product Data Sheet are sold subject to a Limited Warranty and related terms. H.B. Fuller Construction Products disclaims the implied warranties of merchantability and fitness for a particular purpose and all incidental and consequential damages arising out of the sale, purchase or use of this product. For Limited Warranty details visit tecspecialty.com. To obtain a hard copy of the Limited Warranty call H.B. Fuller Construction Products at 800-832-9023 or mail a written request to the address in Section 2 of this Product Data Sheet.

8. MAINTENANCE

Not applicable

9. TECHNICAL SERVICES

Technical and safety literature

To acquire technical and safety literature, please visit our website at tecspecialty.com.

10. FILING SYSTEM

Divisions 3 and 9



tecspecialty.com