

1. PRODUCT NAME

TEC[®] Level Set[®] Epoxy Primer
(052)

2. MANUFACTURER

H.B. Fuller Construction Products Inc.
1105 South Frontenac Street
Aurora, IL 60504-6451 U.S.A.
800.552.6225 Office
800.952.2368 Fax
tecspecialty.com

3. DESCRIPTION

TEC[®] Level Set[®] Epoxy Primer is fast setting, two-component 100% solids, moisture tolerant primer for the installation of TEC[®] Level Set[®] Underlayments and Wear Toppings and can be used as a general primer. Level Set[®] Epoxy Primer has been specifically formulated to accept a sand broadcast to work as a general purpose primer. When your project requires the highest standards in performance, this epoxy primer with sand broadcasting will ensure the highest degree of crack resistance and surface finish strength.

Key Features and Benefits

- Simple 1:1 mix volume
- Fast setting; ready to apply over in 3-4 hours
- Self-priming, requiring no additional primers
- Required primer for decorative concrete applications of TEC[®] Level Set[®] Wear Topping or where dynamic loads are expected
- 100% solids, low VOC
- Single application
- Same day installation of TEC[®] Level Set[®] Underlayments or Wear Topping
- Interior/exterior
- Reduces pin-holes from out gassing of concrete
- Reduces cracking in underlayments and toppings
- Meets and exceeds ASTM C881 Type III (exception an improved gel time)
- Contributes to LEED[®] project points

Packaging

2 Gallon (7.57 L) Kit: Product #7164579358
Part A: 1 Gallon (3.78 L) Epoxy Resin
Part B: 1 Gallon (3.78 L) Epoxy Hardener

Coverage

Squeegee followed by 3/8" (9 mm) nap roller: 150-200 ft²/gal (3.6-4.9 m²/L).

Suitable Substrates

When properly prepared, suitable substrates include:

- Concrete
- Ceramic or quarry tile
- Terrazzo
- Steel
- Epoxy

NOTE: All TEC[®] Level Set[®] products must be used in conjunction with a TEC[®] Level Set[®] primer. See individual product data sheets.

Substrate Preparation

All materials should be stored at 55°F to 80°F (15°C to 27°C) 24 hours prior to installation. Perform moisture testing for moisture vapor emissions rate (MVER) per ASTM F1869 (calcium chloride) and/or F2170 relative humidity test (RH) of the substrate. If the MVER is greater than 5 lbs. per 1,000 sq. ft. (2.27 kg/93 m²) per 24 hours and/or the RH greater than 75% or the MVER and RH exceed the coating or finished floor covering manufacturer recommendations, use TEC[®] LiquiDam[™] Penetrating Moisture Vapor Barrier as the moisture mitigation system.

- Substrates must be structurally sound, completely clean, dry, solid, and dimensionally stable.

- All substrates must be free from liquids or standing water to ensure full penetration.
- Surface temperature must be a minimum of 5°F (-15°C) (above the dew point temperature and not have hydrostatic pressure at the time of application).
- Remove any deleterious materials, laitance, asphalt, dirt, grease, paint, curing or sealing compounds, and any other contaminants that will inhibit the bond and/or proper penetration of the Level Set[®] Epoxy Primer.
- Do not use acid etching, chemicals, or solvents for preparing or cleaning the substrate.
- Remove all loose material by vacuuming to result in a dust free surface before installation of TEC[®] products, brooms shall not be used. Substrates must be structurally sound and completely clean prior to installation.

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

Concrete:

- Test the surface for direct tensile strength per ASTM C1583 prior to installation. The pull-out value must be ≥ 175 psi (1.2 MPa).
- Substrate must be porous. All smooth concrete surfaces such as hard troweled concrete and precast panels must have an open coarse texture to increase penetration.
- The concrete surface must be mechanically profiled by shot blasting, sand blasting or scarifying to achieve an ICRI CSP 3 to CSP 5 standard. Remove any remaining shot using a walk behind magnetic sweeper.

Non-porous:

- Well bonded non-porous substrates consist of the following; epoxy, terrazzo, and ceramic and quarry tiles.
- Non-porous substrates should be well-bonded and should always be mechanically cleaned and roughened.
- Prepare the surface via mechanical means removing all loose material. Vacuum thoroughly, removing all dust and other loose contaminants.

Metal:

- Use abrasive blasting to a white metal finish, when installing over a metal substrate, then wipe the surface clean with a residue-free solvent (such as acetone or xylene).
- Structurally sound and deflection free metal surfaces, such as steel, must be profiled by abrasive blasting to a white metal finish (4 mil (0.1mm) minimum anchor profile).
- If oil is present on the surface the reuse of shot blast or sand blast media is not recommended to avoid re-contaminating the prepared surface.
- If flash rust appears, the surface must be re-blasted to obtain the minimum anchor profile.
- Remove the residue by wiping down the metal substrate with Xylene or Acetone.
- Apply the primer within 1 hour after preparation and before flash rusting.

Non-moving cracks and joints:

- Non-moving cracks and joints must be repaired prior to the installation of the Level Set[®] Epoxy Primer.
- Mechanically prepare and slightly overcut cracks to ensure a clean and sound crack or joint. Completely remove all contaminants prior to installation.
- Can be used neat in opening less than 1/8" (3 mm) wide. For larger cracks, 1/8"-1/4" (3-6 mm), mix 5 lbs. (2.3 kg) of TEC[®] Feather Edge with 48 oz. (1.4 L) of Level Set[®] Epoxy Primer.
- Contact TEC[®] Technical Services for repairing cracks larger than 1/4" (6 mm).

Moving cracks and joints:

- Do not use Level Set[®] Epoxy Primer to repair cracks and/or joints that are subjected to movement.
- All moving cracks and joints must be honored through all installed systems.

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 apply if the substrate has a compressive strength less than 2,500 psi (17.2 MPa) and tensile bond strength of less than 175 psi (1.2 MPa).
- Do not apply on any surface that is not clean and solid.
- Do not apply to any substrate, cracks or voids that are subject to movement. For the repair of moving cracks, determine the treatment procedure using a consultant or engineer.
- Do not acid etch to prepare the surface.
- Do not apply to Portland-based concrete or patches that have cured less than 28 days.
- Do not apply to calcium aluminate-based toppings that have cured less than 24 hours.
- Do not apply over gypsum-based substrates or gypsum-based patching compounds.
- Do not apply onto surfaces that have been treated with a concrete sealer unless removed by mechanical means.
- Do not apply onto surfaces that have free standing water (wet) or when the surface temperature is < 5°F (-15°C) of the dew point temperature.
- Do not use as a wear surface.
- Do not use as a floor leveling product.

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® Epoxy Primer (052)		
Description	Standard	Typical Results
Viscosity (Mixed)	RV-2, 30 rpm	1,000-1500 cP
Gel Time	ASTM C881 (60g)	15-30 minutes
Tensile Strength	ASTM D638 Type 1, 7d	2500-5000 psi (17-34 MPa)
Elongation at break	ASTM D638 Type 1, 7d	30 - 80%
Water Absorption	ASTM D570, 7d	0.4%
Bond Strength	ASTM C882, 2d / moist cure plastic concrete to hardened concrete	>1,600 psi (11 MPa)

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

NOTE: Test results obtained under controlled laboratory conditions, 75°F (24°C) and 50% RH. Reasonable variations can occur due to atmospheric and jobsite conditions.

Physical Properties

Description	
Mixing Ratio	Component A:B 1:1 by volume
Physical State	Part A: Liquid Part B: Liquid
Color	Part A: Amber Yellow Part B: Black
Open Time	60 minutes
Drying Time	3-4 hours
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

Mixing

Do not mix more material than can be applied in 25-30 minutes. (Note: High temperatures will reduce the working time.) For easier mixing and application, before using, allow Level Set® Epoxy Primer to acclimate to room temperature of 65°-75°F (18°-24°C) for a minimum of 24 hours. The mixing ratio is 1 part A to 1 part B by volume.

Remove Part A, white pail, and Part B, black pail, from the outer shipping carton. Mixing of the epoxy primer is simple—pour Part B (black pail) to a clean, dry, 5 gallon (18.93 L) mixing pail, scraping the sides of the Part B container, to remove all material. Pour Part A (white pail) into Part B (black pail) (1:1) scraping the sides to ensure all of Part A has transferred into the Part B. Mix thoroughly for 3 minutes, using a low-speed mixer with a jiffy (paint) style mixing paddle (< 400 rpm). Scrape the sides and corners of the mixing pail to incorporate any unmixed material. Continue mixing until a smooth, homogeneous mixture is achieved; typically 2 to 3 minutes total mixing time. Avoid over mixing as this will incorporate air into the mixture.

Immediately, after thorough mixing, pour the entire contents from the mixing container onto the substrate and spread to the specified thickness.

Application

Apply when the air and substrate temperatures are between 55°-90°F (15°-32°C). For applications outside this range of temperatures, contact TEC® Technical Services. Apply a smooth wet 8 to 10 mil even coating over the substrate using a flat squeegee followed by a 3/8" (9 mm) nap roller (Level Set® Epoxy Primer can also be applied with a nylon paintbrush for hard to reach areas). Apply at a coverage rate of 150-200 ft²/gal (3.6-4.9 m²/L) depending on the surface profile.

While the epoxy is still fresh (within 30 minutes), dry sand broadcast may be added, to refusal (#20-#35 sand). Typically 2/3 to 1 lb/ft² (3.3-4.9 kg/m²) is required. Ensure that sand is broadcast evenly, leaving no areas of un-sanded epoxy. After 4 hours or just before TEC® Level Set® Underlayment or TEC® Level Set® Wear Topping installation, remove all loose sand by sweeping and vacuuming the surface. Install TEC® Level Set® Underlayment or TEC® Level Set® Wear Topping in accordance with the Product Data Sheets published on tecspecialty.com.

The steps below will assist you in how to add the sand broadcast, so the system works best:

- Apply a smooth even 8–10 mil coating of the primer over the prepped substrate using a flat squeegee followed by a 3/8" (9 mm) nap roller, use a nylon paintbrush for those hard to reach areas.
- While the epoxy is still wet (within 30 minutes), broadcast the sand to refusal. You want to use clean, oven dried sand that has a mesh size from #20 to #35 and is free of fines. Usually this will take 2/3 lb. to 1 lb. of sand per square foot (3.3-4.9 kg/m²).
- After a 4 hour cure time remove all the loose sand by sweeping and vacuuming with an industrial vacuum.
- Check for any bald spots and reapply to those areas.

Clean-up

Clean tools immediately and before cured using xylene or MEK following all handling and safety precautions listed on the xylene container. Be sure to use rubber gloves when cleaning and have plenty of ventilation.

NOTE: Cured Level Set® Epoxy Primer can be removed only by mechanical abrasion.

Polishing of TEC® Level Set® Wear Topping

Level Set® Epoxy Primer is required for use as a primer for TEC® Level Set® Wear Topping that is to be polished. Contact TEC® Technical Services for further information.

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. WARRANTY

For warranty details, see your sales associate or visit tecspecialty.com.

8. MAINTENANCE

Not applicable

9. TECHNICAL SERVICES

Technical assistance

Information is available by calling the Technical Support Hotline.

Toll Free: 800-832-9023

Fax: 630-952-1235

Technical and safety literature

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

10. FILING SYSTEM

Division 3



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 **H.B. Fuller**
CONSTRUCTION PRODUCTS
H.B. Fuller Construction Products Inc.
1105 South Frontenac Street
Aurora, IL 60504-6451

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