



# Fiber Reinforced Self-Leveling Underlayment

## 1. PRODUCT NAME

TEC® Fiber Reinforced Self-Leveling Underlayment (565)

## 2. MANUFACTURER

H.B. Fuller Construction Products Inc.  
1105 South Frontenac Street  
Aurora, IL 60504-6451 U.S.A.  
800.552.6225 Office  
800.832.9023 Technical Support  
800.952.2368 Fax  
tecspecialty.com

## 3. DESCRIPTION

TEC Fiber Reinforced Self-Leveling Underlayment is a pumpable/pourable, calcium aluminate-based product that can be used as a high performing self-leveling underlayment designed for use over a variety of substrates. The resulting smooth finished surface is ideal for the installation of all types of floor covering, including carpet, ceramic or natural stone tile, resilient, laminate flooring and wood flooring.

### Key Features and Benefits

- Calcium aluminate technology for rapid strength development
- Triple fiber-reinforced
- No reinforcement mesh required over wood substrates\*
- Can be applied directly over new or moist concrete RH 99% or lower
- Thickness ranges from 1/8" (3 mm) up to 1 1/2" (38 mm) depth in a single pour
- Self-drying formula
- Walkable in 2-4 hours; install flooring as soon as 6 hours
- Recommended for use with radiant heating systems
- Contains 10% pre-consumer recycled material
- Contributes to LEED® project points
- Zero VOC

\*See section 5 for wood substrates installation guidelines.

### Packaging

50 lb. plastic bags (22.68 kg) Product #15035752  
50 lb. moisture-resistant bags (22.68 kg) Product #15035753

### Coverage

Coverages shown are approximate. Actual coverages may vary according to substrate conditions and thickness of applications.

Application Depth	Approximate Weight in Pounds per Square Foot (kg/m <sup>2</sup> )	Approximate Coverage per 50 lbs. (22.68 kg)
1/8" (3 mm)	1.1-1.3 (5.4-6.3)	44-50 sq.ft. (4.1-4.6 m <sup>2</sup> )
1/4" (6 mm)	2.2-2.6 (10.7-12.7)	22-27 sq.ft. (2.0-2.5 m <sup>2</sup> )
1/2" (12 mm)	4.6-5.3 (22.5-25.9)	11-13 sq.ft. (1.0-1.2 m <sup>2</sup> )
1" (25 mm)	9.1-10.5 (44.4-51.3)	5-6 sq. ft. (0.5-0.6 m <sup>2</sup> )
2" (50 mm)	18.2-21.0 (88.8-102.6)	3.125 sq. ft. (0.29 m <sup>2</sup> )

### Suitable Substrates

When properly prepared, suitable substrates include:

- Concrete
- Ceramic, porcelain, or quarry tile
- Cement or epoxy terrazzo
- Cement backerboard
- Exterior grade plywood
- Oriented Strand Board (OSB)

- VCT or full glued down, non-cushioned vinyl sheet goods
- Gypsum substrates (properly primed) with minimum tensile bond strength 72 psi (0.5 MPa)

### Substrate Preparation (In accordance with ASTM F710)

All materials should be stored at 50°F (10°C) to 90°F (32°C) 24 hours prior to installation. It is required that all surfaces must be structurally sound and free from any contaminants that may inhibit bond, including oil, grease, dust, loose or peeling paint, floor finishes or waxes, etc.

Minimum tensile bond strength of 72 psi (0.5 MPa) is required.

Substrate temperature should be a minimum of 43°F (6°C) during application and air temperature maintained above 50° (10°C). DO NOT cover existing building expansion joints, isolation joints or any crack or joint subject to movement. Provide joints where specified. Create 1/8" to 1/4" (3-6 mm) wide gaps where self-leveling underlayment abuts walls, columns, and fixtures by installing a self-sticking foam such as weather stripping tape or damp sand (vacuum up sand after self-leveling underlayment has cured). **Surfaces must be primed with TEC Multipurpose Primer prior to installation of TEC Fiber Reinforced Self-Leveling Underlayment.** See Primer label for application instructions. It is recommended to test for substrate moisture content to ensure it meets the floor covering manufacturer's requirements.

TEC Fiber Reinforced Self-Leveling Underlayment can be installed over green concrete with a maximum of 99% RH. **Remediation of excessive moisture conditions must be addressed prior to the installation TEC Fiber Reinforced Self-Leveling Underlayment.** This product is not a moisture vapor barrier. If substrate moisture content exceeds the maximum allowed by the flooring manufacturer, then moisture mitigation must be applied prior to application of Fiber Reinforced Self-Leveling Underlayment. To reduce moisture vapor emissions to an acceptable level, use TEC LiquiDam™ Penetrating Moisture Vapor Barrier or LiquiDam EZ™ Moisture Vapor Barrier prior to application of TEC Multipurpose Primer and TEC Fiber Reinforced Self-Leveling Underlayment (see product data sheet for details).

**For installation over adhesive (except for tacky and pressure sensitive adhesive), remove adhesive by scraping (mechanical removal, DO NOT use chemical adhesive removers) until all that remains is a thin transparent layer of adhesive residue.**

**Single Layer of Exterior Grade Plywood or Oriented Strand Board (OSB) without Lath:** Wood subflooring must be securely fastened with screw type or ring shank nails and adhesive. Installations of exterior grade plywood or OSB (APA Rated Sturd-I-Floor OSB, Exposure 1 or better) require 5/8" (15 mm) single layer minimum thickness on bridged floor joists up to 20" (50 cm) on center, or require 3/4" (19 mm) single layer minimum thickness on bridged floor joists up to 24" (60 cm) on center, with a maximum deflection of 1/360 of the span. Allow a gap of 1/8" to 1/4" (3-6 mm) between sheets of plywood or OSB. Long edges of subfloor must be tongue and groove or supported by bridging between floor joists. Use suitable TEC surface preparation products (PerfectFinish™, Feather Edge, VersaPatch®, Fast-Set Deep Patch) to plug all floor openings, gaps and cracks and install termination dams to prevent any seepage. Prime the floor and allow it to dry to a clear film. Install TEC Fiber Reinforced Self-Leveling Underlayment based upon the following joist spacing in the table below:

Joist Spacing (o.c.)	Minimum SLU thickness over single layer:	
	5/8" (15 mm) tongue and groove subfloor	3/4" (19 mm) tongue and groove subfloor
16" or less (40 cm or less)	5/8" (15 mm)	5/8" (15 mm)
20" or less (50 cm or less)	5/8" (15 mm)	5/8" (15 mm)
24" or less (60 cm or less)	NA	3/4" (19 mm)

**Radiant Heating Systems:** For radiant heat system installations, always prime the substrate before installing heating system components on the substrate surface. Heating system must be off 2 days before and kept off for 7 days after installation.

*Electric Wire Systems Installed Over Substrate* – TEC® Fiber Reinforced Self-Leveling Underlayment may be used in conjunction with wire systems installed over concrete, single layer plywood/OSB subfloors. Follow the requirements for each substrate stated above and maintain minimum thickness of self-leveling underlayment above the wire of ¼" (6 mm).

*Electric Mat Systems Installed Over Substrate* – Mat system configurations can vary by system manufacturer. Contact system manufacturer for installation instructions.

*Hydronic Systems Installed Over Substrate* – TEC Fiber Reinforced Self-Leveling Underlayment may be used in conjunction with hydronic systems installed over concrete or single layer plywood/OSB subfloors. Follow the requirements for each substrate stated above and maintain minimum thickness of self-leveling underlayment over the heating tubes of ⅝" (15 mm) (depending on the diameter of the tubing, two lifts of self-leveling underlayment may be required). When installing ceramic tile over hydronic systems the application of a crack isolation membrane over the self-leveling underlayment is recommended.

*Hydronic Systems Embedded in Concrete Substrate* – Follow the requirements for concrete substrate installations stated above and maintain minimum thickness of concrete over the embedded heating tubes of ¾" (19 mm). When installing ceramic tile over hydronic systems the application of a crack isolation membrane over the self-leveling underlayment is recommended.

**Metal Substrates:** Suitable metal substrates include non-galvanized steel, stainless steel, copper, aluminum and lead. Metal substrates must be fully supported, firmly attached and rigid with no flexing or vibration. In addition to the General surface contaminants listed above, metal surfaces shall be free of rust or corrosion. Remove by sand blasting, wire brush or other mechanical means. To prevent rusting of unpainted steel, prime with TEC Multipurpose Primer immediately after surface cleaning.

#### 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.

#### Limitations

- For interior use only.
- Do not apply when the temperature is below 50°F (10°C).
- Not for use in conditions of hydrostatic pressure or excessive moisture RH 99% or lower.
- Do not apply over sealed concrete, tempered hardboards (e.g. Masonite), particle board or lauan plywood.
- Do not use as a wear surface and should be protected from construction trade traffic until the final floor covering is applied. Do not allow heavy or sharp metal objects to be dragged directly across the TEC Fiber Reinforced Self-Leveling Underlayment.

#### Cautions

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

TEC® Fiber Reinforced Self-Leveling Underlayment (565)	
Description	Typical Results
28 Day Compressive Strength	6000 psi (41.0 MPa)
28 Day Flexural Strength	1200 psi (8.2 MPa)
Tensile Strength	350-400 psi (2.4-2.7 MPa)
28 Day Shrinkage	0.025-0.050%

## Physical Properties

Description	
Physical State	Dry powder
Color	Gray
Working Time	15-20 minutes*
Walkable Hardness	2-4 hours*
Flooring Installation	Permeable Coverings: 6 hours* Non-Permeable Coverings: 12-24 hours*
Flow (ASTM C1708)	5"-6" (12.7-15.2 cm)
Storage	Store in cool, dry location. Do not expose to nor store in direct sunlight.
Shelf Life	Maximum 1 year from date of manufacture in properly stored, unopened package.

\*Temperature and humidity will affect flow, working time and set time.

## 5. INSTALLATION INSTRUCTIONS

### Mixing

Mix up to 2 bags of Fiber Reinforced Self-Leveling Underlayment at a time. In a clean, appropriate sized container, add 5-5.25 qts. (4.7-5.0 L) of clean, cool potable water for **EACH** 50 lb. (22.68 kg) bag. Next add the Fiber Reinforced Self-Leveling Underlayment, while mixing at full speed using a mixing blade suitable for the mixing container shape attached to a heavy-duty ½" (12 mm) drill (minimum 650 rpm). Do not add extra water. Mix completely for a minimum of 2 minutes until lump free, adding no additional water. Do not overmix or move the mixer up and down while mixing as this will entrap air, lower the strength and may cause cracking and/or pin holing. The formation of a white film on the surface is an indication of overwatering. To keep the job moving, it is recommended that tow mixing drums be used simultaneously. This will allow one mixing container to be poured while the other is being mixed. **Use full bags only.**

**For applications utilizing a pumping system:** Fiber Reinforced Self-Leveling Underlayment can be mechanically mixed using either an in-line continuous mixer and pump or a batch mixer and pump using 5-5.25 quarts. (4.7-5.0 L) clean potable water for **EACH** 50lb (22.68 kg) bag of powder. The minimum required hose length is 100 ft. (30.5 m) for in-line continuous mixers. For horizontal applications greater than 300 ft. (91.4 m) and vertical applications greater than 40 ft. (12.2 m) contact TEC Technical Services at 800-832-9023.

Before starting, ensure the mixer and pumps are completely clean and in good working order. Refer to the manufacturer instructions for specific maintenance and cleaning. Prior to Fiber Reinforced Self-Leveling Underlayment installation, adjust the pump to ensure proper mixing and a uniform distribution of sand is achieved throughout the mix. Do not overwater as this will lower the strength and may cause cracking and/or pin holing. To avoid segregation and over watering during installation, the water settings may require adjusting. Check the product consistency to ensure a uniform distribution of the aggregates during pumping. The conditions that can affect the overall performance are, but not limited to, length of hose, water temperature, water pressure, substrate, ambient air temperature, and powder temperature. On the end of the hose attach a mesh-screen sock to trap any foreign or unmixed material. Always test pump using the actual maximum hose length and conditions before installation to ensure proper application and appearance is achieved. Test the mixed material periodically from the pump to ensure suitable mix and flow prior to general application.

### Application

Apply when air temperature is between 50°F (10°C) and 90°F (32°C) within 24 hours of application. Close all windows, doors and HVAC vents to minimize air flow. Divide the areas to permit continuous placement without cold joints. Pour or pump the blended Fiber Reinforced Self-Leveling Underlayment onto the floor and disperse with a gauge rake. Optimum results can be obtained by providing a continuous wet flow throughout the application. Fiber Reinforced Self-Leveling Underlayment has a working time 15-20 minutes at 70°F (21°C). **Temperature and humidity will affect flow, working time and set time.** It is the sole responsibility of the installer to determine the suitability and compatibility of the TEC Fiber Reinforced Self-Leveling Underlayment for the user's intended use.

Up to 5" (12 cm) thickness may be poured with the addition of aggregate [well-graded, washed, dry pea gravel ⅜" (3 mm) or larger]. First mix TEC Fiber Reinforced Self-Leveling Underlayment as instructed. During placement add

equal parts of the aggregate to mixed self-leveler by volume, mix until completely coated. To ensure proper bond, all aggregate and substrate must be completely coated with the underlayment mixture. Do not use sand. For further information, please contact your TEC® representative.

**Multiple lifts:** For installations using multiple lifts of self-leveling underlayment, the first lift should be allowed to cure until walkable. Application of two coats of primer are required prior to the second lift as outlined on the Multipurpose Primer product data sheet with the first coat being 1:3 primer to water, and the second coat being 1:2 primer to water.

#### Clean-up

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

#### Curing

Protect from excessive temperature, air movement and direct sunlight during cure. Turn off all HVAC systems whenever possible for up to 24 hours after install.

NOTE: TEC Fiber Reinforced Self-Leveling Underlayment is not a wear surface and should be protected from construction trade traffic until the final floor covering is applied.

### 6. AVAILABILITY

TEC premium surface preparation, tile, stone, carpet, wood and resilient floor covering installation products are available nationwide.

To locate TEC products in your area, please contact:

Phone: 800-832-9002

Website: [tecspecialty.com](http://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](http://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](http://tecspecialty.com).

### 10. FILING SYSTEM

Division 9



To learn more, visit [TECSpecialty.com](http://TECSpecialty.com)



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



@TECInstallationSystems



tecinstallationsystems



TECInstallationSystems



TEC Installation Systems