



Level Set® LW-60 High Quality, Ultra-Light Self-Leveling Underlayment

1. PRODUCT NAME

TEC® Level Set® LW-60 High Quality, Ultra-Light Self-Leveling Underlayment (053)

2. MANUFACTURER

H.B. Fuller Construction Products Inc.
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3. DESCRIPTION

TEC Level Set LW-60 is a calcium aluminate based self-leveling underlayment and is the ideal choice when the weight of materials is a critical factor in load bearing structures. It is a unique, ultra-lightweight, high quality, easy to handle, self-leveling underlayment that provides a flat, smooth, durable surface for finished flooring installation, at half of the weight of a conventional portland cement or gypsum-based underlayment--just 60 pounds/cubic foot.

Key Features and Benefits

- Provides a smooth surface
- Applications from ¼"-2" (6-50 mm) neat and can be featheredged to adjoining elevations
- 50% lighter than conventional cement and gypsum based systems
- Walkable in 3-4 hours
- Accepts non-moisture sensitive tile and stone in 4 hours
- Install moisture sensitive floor covering in 16-24 hours
- High compressive strength – 4,000 psi (27.59 MPa)
- Contributes to LEED® project points
- Zero VOC

Packaging

25 lb. moisture-resistant bags (11.34 kg)
Gray

Product #15036052

Coverage

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

Application Depth	Weight/sq. ft. (Weight/m ²)	Approximate Coverage per 25 lbs. (11.34 kg)
¼" (6 mm)	1.3 lbs./sq.ft. (6.34 kg/m ²)	24 sq.ft. (2.23 m ²)
½" (12 mm)	2.6 lbs./sq.ft. (12.69 kg/m ²)	12 sq.ft. (1.11 m ²)
1" (25 mm)	5.2 lbs./sq. ft. (25.38 kg/m ²)	6 sq. ft. (0.56 m ²)
2" (50 mm)	10.4 lbs./sq. ft. (50.77 kg/m ²)	3 sq. ft. (0.28 m ²)

Suitable Substrates

When properly prepared, suitable substrates include:

- Concrete
- Ceramic, porcelain or quarry tile
- Cement or epoxy terrazzo
- Cement backerboard, properly prepared
- VCT or full glue down, non-cushioned vinyl sheetgoods
- Exterior grade plywood (with reinforcement lath)
- Oriented Strand Board (OSB) (with reinforcement lath)
- 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) and air temperature maintained above 50°F (10°C) and below 100°F (38°C) during and within 24 hours of application. DO NOT cover existing building expansion joints, isolation joints or any crack or joint subject to movement. Provide control joints where specified. Create ⅛" to ¼" (3-6 mm) wide gaps where self-leveling underlayment abuts walls, columns, and fixtures by installing a self-sticking foam 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 LW-60.** See primer label for application instructions. It is recommended to test for substrate moisture content to ensure it meets floor covering manufacturer's requirements.

Level Set® LW-60 can be installed over new green concrete with a maximum of 99% RH. **Remediation of excessive moisture conditions must be addressed prior to the installation Level Set LW-60.** 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 Level Set® LW-60. 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 Level Set® LW-60 (see product data sheet for details).

Single Layer of Exterior Grade Plywood or Oriented Strand Board (OSB) with 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 ¾" (19 mm) single layer minimum thickness, from the highest point of the floor, 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 ⅛" to ¼" (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 (Feather Edge Skim Coat, 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. Next, staple ¼" (6 mm) galvanized diamond metal or plastic lath to the floor overlapping 2" (5 cm) at seams. Staple every 6" (15 cm) around the perimeter and overlaps, and every 8" (20 cm) in the field of the lath. Install Level Set® LW-60 based upon the following joist spacing in the table below:

Joist Spacing (o.c.)	Minimum SLU thickness over single layer ¾" (19 mm) tongue and groove subfloor with lath
16" or less (40 cm or less)	⅜" (9 mm)
20" or less (50 cm or less)	½" (12 mm)
24" or less (60 cm or less)	⅝" (15 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 – Level Set® LW-60 may be used in conjunction with wire systems installed over concrete, single layer plywood/OSB subfloors with plastic lath or double layer plywood floors without lath. Follow the requirements for each substrate stated above and maintain minimum thickness above the wire when used as a self-leveling underlayment 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 – Level Set® LW-60 may be used in conjunction with hydronic systems installed over concrete or ¾" (19 mm) single layer plywood/OSB subfloors with lath. Follow the requirements for each substrate stated above and maintain minimum thickness of Level Set® LW-60 over the heating tubes of ½" (12 mm) (depending on the diameter of the tubing, two lifts

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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), from the highest point of the floor. 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.
- Not for use in conditions of hydrostatic pressure or excessive moisture.
- Do not use as a wear surface. Do not allow heavy or sharp metal objects to be dragged directly across the Level Set LW-60 surface.
- Do not overwater, retemper or add any additives.
- Do not install over dimensionally unstable substrates such as particle board, lauan, asbestos or chip board.

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

TEC® Level Set WL-60 High Quality, Ultra-Light Self-Leveling Underlayment (053)

Description	Typical Results
28 Day Compressive Strength	> 4000 psi (27.59MPa)
28 Day Flexural Strength	> 1100 psi (7.59 MPa)
28 Day Shrinkage	< -0.07%

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

Physical Properties

Description	
Physical State	Dry powder
Color	Gray
Working Time	25-35 minutes*
Walkable Hardness	3-4 hours*
Flooring Installation	Non-moisture sensitive tile and stone: 4 hours* Moisture sensitive floor coverings: 16-24 hours*
Ideal Flow Range (ASTM C1708)	5-6 inches (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 2 bags of Level Set® LW-60 at a time. In a clean appropriate sized container add 6.0 qts. (5.7 L) of clean, cool potable water for **EACH** 25 lbs. (11.34 kg) bag. Next add the Level Set® LW-60, 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 over mix or move the mixer up and down during 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 over watering. To keep the job moving, it is recommended that two mixing drums be used simultaneously. This will allow one mixing container to be poured while the other is being mixed. After use clean all mixing equipment thoroughly to avoid hardened product in subsequent batches.

Use full bags only.

For applications utilizing a pumping system: Level Set® LW-60 can be mechanically mixed using either an in-line continuous mixer and pump or a batch mixer and pump using 6.0 qts. (5.7 L) clean potable water for **EACH** 25 lb (11.34 kg) bag of powder. The minimum required hose length is 100 ft. (30.5 m) for In-Line Mixers. Do not use for pumping applications that have a horizontal hose length of 300 ft. and/or a vertical hose length of 40 ft.

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 Level Set® LW-60 installation adjust the pump to ensure proper mixing and that 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 pinholing. 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.

NOTE: For applications utilizing a pump system, please contact TEC® Technical Services.

Application

Apply when air and substrate temperatures are between 50°F (10°C) and 90°F (32°C) within 24 hours of application. For applications outside this range of temperatures, contact TEC® Technical Services. 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 Level Set® LW-60 on to the floor and disperse with a gauge rake. Use cleated shoes to avoid leaving marks. Optimum results can be obtained by providing a continuous wet flow throughout the placement. Level Set® LW-60 has a working time of 25-35 minutes at 70°F (21°C). **Temperature and humidity will affect flow, working time and set time.** Outgassing can occur when applying multiple lifts. If capping is required contact your TEC® representative. It is the sole responsibility of the installer to determine the suitability and compatibility of the Level Set LW-60 for the user's intended use.

NOTES: When vinyl, wood or other types of floor coverings are to be installed over Level Set® LW-60, the requirements of the floor covering manufacturer are to be followed with respect to, but not limited to, levels of moisture.

Level Set® LW-60 will not correct or compensate for a structurally defective substrate. Faults in the substrate can appear in the underlayment. The use of alkali resistant glass fabric or galvanized metal reinforcing (Federal Specification QQL 101C) can be helpful in reducing reflective cracking.

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

Use clean potable water to clean all tools immediately after use.

Curing

Protect from excessive drying due to temperature, air movement and direct sunlight. The use of damp curing or the use of curing compounds is not recommended. Turn off all forced air ventilation and radiant heating systems whenever possible for up to 24 hours after installation.

NOTE: Level Set® LW-60 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

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

Division 9



Conforms with LEED v4 low emitting interiors.
Compliant with (CDPH) Standard Method v1.2 VOC Emissions.



To learn more, visit TECSpecialty.com



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