

1. PRODUCT NAME

Fortane™ SL-1C Self-Leveling Underlayment

2. MANUFACTURER

TEC Specialty Products LLC
1105 South Frontenac Street
Aurora, IL 60504-6451 U.S.A.
800.832.9002 Customer Service
800.832.9023 Technical Support
tecspecialty.com

3. DESCRIPTION

Fortane SL-1C is a pumpable/pourable calcium aluminate based, self-leveling underlayment designed for use over a variety of substrates.

Key Features and Benefits

- Calcium aluminate technology for rapid strength development
- Superior flow properties at economical price point
- Use directly over green concrete <95% RH
- Thickness ranges from ⅛" (3.2 mm) up to 2" (50 mm) depth in a single pour, up to 5" (12 cm) with proper aggregate
- Pourable or pumpable
- Cures to a smooth, consistent finish
- Walkable in 4-6 hours, ceramic tile in 24 hours, finished floor coverings can be applied in 48 hours
- 1-year limited warranty
- Contributes to LEED® project points
- Zero VOC

Packaging

50 lb. moisture-resistant bags (22.68 kg)

Product #10018211

Coverage

Coverages shown are approximate. Actual coverage may vary based on substrate conditions. Coverage per 50 lbs. (22.68 kg) SL-1C Self-Leveling Underlayment.

Application Depth	Approximate Weight in Pounds per Square Foot (kg/m²)	Approximate Coverage
⅛" (3 mm)	1.1-1.3 (5.4-6.3)	42-48 sq.ft. (3.9-4.5 m²)
¼" (6 mm)	2.2-2.6 (10.7-12.7)	21-24 sq.ft. (2.0-2.2 m²)
½" (12 mm)	4.6-5.3 (22.5-25.9)	10-12 sq.ft. (0.9-1.1 m²)
1" (25 mm)	9.1-10.5 (44.4-51.3)	5-6 sq.ft. (0.5-0.6 m²)
2" (50 mm)	18.2-21 (88.8-102.6)	2-3 sq.ft. (0.2-0.3 m²)

Suitable Substrates

When properly prepared, suitable substrates include:

- Concrete
- Ceramic or quarry tile (well-bonded)
- Exterior grade plywood (with reinforcement lath)
- Oriented Strand Board (OSB) (with reinforcement lath)

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 be structurally sound and free from any contaminants that may inhibit bond, including oil, grease, dust, loose or peeling paint, sealers, floor finishes, or curing compounds, 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 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 such as weather stripping tape or damp sand (vacuum up sand after self-leveling underlayment has cured). **Surfaces must be primed with Fortane™ Multi-purpose Primer prior to installation of SL-1C.** See Primer label for application instructions.

It is recommended to test for substrate moisture content to ensure it meets the floor manufacturer's specifications on moisture limitations. **Remediation of excessive moisture conditions must be addressed prior to the installation of SL-1C.** SL-1C can be installed over green concrete with RH of 95% or less. 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 the SL-1C. To reduce moisture vapor emissions to an acceptable level, use Fortane™ EZ MVB Moisture Vapor Barrier (see product data sheets for details).

SL-1C is not recommended for use over adhesives and/or residues.

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 on bridged floor joists up to 24" (60 cm) on center, with a maximum deflection of ⅓₆₀ 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 Fortane™ Latex Modified Floor 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 SL-1C based upon the following joist spacing in the table below:

Joist Spacing (o.c.)	Minimum SLU thickness with lath over single layer ¾" (19 mm) tongue and groove subfloor
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)

Storage

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

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 (>95% RH).
- 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 SL-1C surface.
- Do not use over non-dimensionally stable substrates, such as gypsum, vinyl, tempered hardboards (e.g. Masonite), particle board or lauan plywood.
- Not recommended for use over hydronic heating

Cautions

Read complete cautionary information printed on product container prior to use. Non-hazardous; no special precautionary measures are required. 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 Fortane brand product(s) under normal environmental and working conditions. Because each project is different, TEC Specialty Products LLC cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

4. TECHNICAL DATA

Fortane SL-1C Self-Leveling Underlayment	
Description	Typical Results
28 Day Compressive Strength	4000 psi (27.3 MPa)
28 Day Flexural Strength	700 psi (4.8 MPa)
Tensile Strength	300 psi (2.1 MPa)
28 Day Shrinkage	0.025-0.045%

Physical Properties

Description	
Physical State	Dry powder
Color	Gray
Working Time	15-20 minutes*
Walkable Hardness	4-6 hours*
Flooring Installation*	24 hours: tile and stone* 48 hours: all other flooring*
Flow (ASTM C1708)*	5"-6" (12.7-15.2 cm)
Storage	Store in a cool, dry area away from direct sunlight. Do not store open bags.
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 SL-1C at a time. In a clean, appropriate sized container, add 4.5-4.75 qts. (4.3-4.5 L) of clean, cool potable water for **EACH** 50 lb. (22.68 kg) bag. Next add the SL-1C, 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 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 two 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: SL-1C can be mechanically mixed using either an in-line continuous mixer and pump or a batch mixer and pump using 4.75 qts. (4.5 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 Fortane 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 SL-1C 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). 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 SL-1C onto 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 application. SL-1C has a working time of 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 SL-1C for the user's intended use.

Increased thickness: Up to 5" (12 cm) thickness may be poured with the addition of aggregate [well-graded, washed, dry pea gravel ⅛" (3 mm) or larger]. First mix SL-1C 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 Fortane 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 Multi-purpose 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 drying due to temperature, air movement and direct sunlight. Turn off all HVAC systems whenever possible for up to 24 hours after installation. The use of damp curing or the use of curing compounds is not recommended. SL-1C dries to walkable hardness in 4 to 6 hours. Tile and stone floor coverings can be installed in 24 hours and all other floor coverings can be installed in 48 hours. NOTE: SL-1C is not a wear surface and should be protected from construction trade traffic until the final floor covering is applied.

6. AVAILABILITY

Fortane products are available nationwide.

To locate Fortane 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. **TEC Specialty Products LLC 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 TEC Specialty Products at 800-832-9023 or mail a written request to the address in Section 2 of this Product Data Sheet.

8. TECHNICAL SERVICES

Technical and safety literature

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

To learn more, visit TECSpecialty.com



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