

# LEVELROCK™ Brand Floor Underlayment

## Self-Leveling Cement (SLC)

**Premium poured flooring underlayment products**

- Cementitious surface ideal for commercial, institutional, and renovation construction
- Fast application, fast setting allows for return of light trade traffic within hours
- Superior compressive strength
- Variable thickness (featheredge up to 1-1/2 inches)
- Ultra-smooth, crack-resistant, thin-profiled surface
- Moisture resistant
- Applied by USG licensed contractors

**System Description**

LEVELROCK Brand Floor Underlayment Self-Leveling Cement (SLC) is a premium cementitious underlayment designed by USG for use in commercial, institutional, and rehab construction. It provides a smooth, hard underlayment surface over concrete slabs, pre-stressed concrete or concrete planks at thicknesses from featheredge to 1-1/2 inches. It is suitable for a variety of floor coverings. LEVELROCK Brand Floor Underlayment Self-Leveling Cement (SLC) exceeds commercial vinyl floor covering requirements as a high-performing underlayment with compressive strengths up to 5000 psi. Quick set times and high production rates allow for traffic within hours of installation. Exceptional surface hardness of LEVELROCK Brand Floor Underlayment Self-Leveling Cement (SLC) resists indentation. It also will withstand up to 45 days of normal construction traffic.

**Product Description**

LEVELROCK Brand Floor Underlayment Self-Leveling Cement (SLC) is mixed with sand and water at the jobsite to yield a lightweight, leveling slurry. A 1/2-inch thick underlayment weighs approximately 5.0 pounds per square foot and has a density of only 120 pounds per cubic foot.

**System Benefits**

LEVELROCK Brand Floor Underlayment Self-Leveling Cement (SLC) provides an economical way to achieve lightweight, fire-resistant, self-leveling floors in commercial, institutional, and renovation construction. Typical applications are less labor intensive than many other types of construction. Higher compressive strengths minimize floor damage from trades. Low profiles allow for design flexibility.

**Physical Properties**

Typical Compressive Strength (modified aggregated) ASTM C109	4500-5000 psi
Density (aggregated)	120 lb./cu.ft.

**Limitations**

- LEVELROCK Brand Floor Underlayment Self-Leveling Cement (SLC) is not recommended for use:
1. As a wearing surface.
  2. For exterior applications.
  3. In heavy industrial applications (i.e., warehouses).

**Installation**

During the entire installation process, the building must be enclosed and temperature maintained at 50 °F minimum until permanent heating is available. Adequate ventilation must be provided to ensure uniform drying of the installed cementitious floor underlayment, which typically occurs within five to seven days. Limit design of the subfloor and framing to a minimum of L/360 to prevent undue stress from occurring in the floor fill material, as this stress may produce cracks. The application of LEVELROCK Brand Primer to the subfloor is necessary to provide maximum bond between the underlayment and the subfloor. Concrete slabs that are receiving underlayment systems must be properly cured (generally for a minimum of 28 days) prior to the underlayment installation. Concrete slabs should be properly treated with LEVELROCK Brand Primer according to manufacturer’s recommendations. Additionally, prior to the application of primer, concrete floors should be prepared following manufacturers’ recommendations and as outlined in the International Concrete Repair Institute Guideline No. 03732.

**Specifications Note to Architect**

These are specifications for the installation of LEVELROCK Brand Floor Underlayment Self-Leveling Cement (SLC) covering normal project requirements. For additional data regarding special conditions and applications, please contact your local USG representative.



<b>Part 1: General</b>	<b>1.1 Scope</b>	Specify to meet project requirements.
	<b>1.2 Qualifications</b>	All materials, unless otherwise indicated, shall be manufactured by the United States Gypsum Company and shall be installed in accordance with its current printed directions by USG licensed LEVELROCK Brand Floor Underlayment applicators.
	<b>1.3 Delivery and Storage of Materials</b>	All materials shall be delivered in their original unopened packages and stored in an enclosed shelter providing protection from damage and exposure from the elements. Damaged or deteriorated materials shall be removed from the premises.
	<b>1.4 Site Conditions</b>	Before, during, and after installation of product, building interior shall be enclosed and maintained at a temperature above 50 °F (10 °C)
<b>Part 2: Mixing</b>	<b>2.1 Products</b>	<p><b>A. Self-Leveling Cement</b>—LEVELROCK Brand Floor Self-Leveling Cement (SLC).</p> <p><b>B. Primer</b>—Use LEVELROCK Brand Primer over approved subfloor as specified by manufacturer.</p> <p><b>C. Sand</b>—Washed sand complying with ASTM C33 and meeting specifications published in the USG LEVELROCK Brand Application Manual.</p> <p><b>D. Water</b>—Potable, free from impurities.</p>
	<b>2.2 Mixing Proportions</b>	Add 2.0 to 2.5 gallons of water, one 80 lb. bag of LEVELROCK Brand Floor Self-Leveling Cement (SLC) and sand volume not to exceed 0.8 cu. ft. depending upon specified compressive strength. Do not over water. Water amount will change with wetness of sand.
<b>Part 3: Execution</b>	<b>3.1 Preparation</b>	<b>A.</b> Subfloor shall be structurally sound. Contractor shall clean subfloor to remove mud, oil, grease, and other contaminating factors before arrival of the underlayment crew. Check that substrates are dry, smooth, and clean. Apply leak prevention material to crack and void. Scarifying concrete of subfloor is recommended.
	<b>3.2 Application of Cementitious Flooring</b>	<p><b>A.</b> Application shall not begin until the building is enclosed, including roof, windows, doors, and other fenestration. Install after drywall installation unless tenant finish requirements identify partitioning after the pour.</p> <p><b>B.</b> Place cementitious flooring, at a typical thickness of 1/4 to 1/2 inch but no more than 1-1/2 inches thick over plank or poured in place concrete. Spread product using a “porcupine” roller. Do NOT overwork the product. Where necessary, product may be featheredged. Except at authorized joints, place product as continuously as possible until application is complete so that no slurry is placed against product that has obtained its initial set.</p> <p><b>C.</b> General contractor shall provide continuous ventilation and adequate heat to rapidly remove moisture from the area until the cementitious underlayment is dry.</p>
	<b>3.3 Preparation for Installation of Glue Down Floor Goods</b>	<b>A.</b> LEVELROCK Brand Floor Underlayment Self-Leveling Cement (SLC) does not require a sealer. Follow manufacturers' recommendation for installation of glue down floor goods. Where floor goods manufacturers require special adhesive or installation systems, their requirements supersede all other recommendations. Damaged floor areas need to be repaired prior to installation of finished floor.
	<b>3.4 Field Quality Control</b>	<p><b>A.</b> Cementitious underlayment mix shall be tested for slump as it's being pumped using a 2" (i.d.) x 4" cylinder resulting in a patty size of 10-1/2 inches plus or minus 1/2 inch diameter.</p> <p><b>B.</b> At least one set of three (3) molded cube samples shall be taken from each day's pour or every 10,000 sq. ft. (whichever is less) during the cementitious underlayment application. Cube mold material shall be brass or engineered plastic. Cubes shall be tested in accordance with modified ASTM C109.</p>
<p><b>Warning</b> When mixed with water, this material hardens and then slowly becomes hot—sometimes quickly. DO NOT attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb. Dust may require cause skin, eye, nose, throat, or respiratory irritation. Avoid dust inhalation and exposure to dust. If dusty, wear an NIOSH/MSHA-</p> <p>approved dust respirator. Use proper ventilation to reduce dust exposure. Portland cement is strongly alkaline and can be corrosive to eyes, skin, and respiratory tract. Wear eye and skin protection. If eye contact occurs, immediately flush thoroughly with water for 15 minutes and get medical attention. Do not ingest. If ingested and any discomfort occurs, call physician. Product safety information: (800) 507-8899.</p> <p><b>KEEP OUT OF REACH OF CHILDREN.</b></p>		
<p><b>Trademarks</b> The following trademark used herein is owned by United States Gypsum Company or a related company: FIBEROCK, LEVELROCK, SHEETROCK, USG.</p>		
<p><b>Notice</b> We shall not be liable for incidental or consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instruction or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.</p>		