

# Levelrock® Floor Underlayment

## CSD® Early Exposure™

**Please note** – because we routinely develop new systems, this document may not contain the latest updates.

For product information, architectural specifications, and fire-rated or sound assembly performance information, contact your local USG Architectural Services Manager or visit [usgdesignstudio.com](http://usgdesignstudio.com).

West: Jennifer Link-Raschko at 951 313.4994  
East: Alex MacDonald at 817 584.4714

For installation questions or to locate the nearest LEVELROCK applicator, contact ALCORP Marketing, Inc. at 817 329.1808.

### Premium poured floor underlayment for use over corrugated galvanized steel deck

- Up to 55% lighter than 3 in. of conventional concrete
- Streamlines trade scheduling—can now be installed much earlier in the building's construction schedule
- Increases rentable/sellable square footage on same footprint
- Allows trade traffic to resume the next day (conventional poured concrete requires 7–10 days)
- UL-rated assembly, non-combustible
- May assist in obtaining LEED® credits

### Description

LEVELROCK® CSD® EARLY EXPOSURE™ floor underlayment is a proprietary formulation designed for interior use in buildings with light-gauge steel frame construction and a corrugated steel deck. LEVELROCK CSD EARLY EXPOSURE floor underlayment provides a robust 3500–5000 psi compressive strength and may be applied at a much lower thickness than poured-in-place concrete. This innovative hybrid cementitious formula can be poured up to 60 days\* before installing a building's permanent windows and doors. LEVELROCK CSD EARLY EXPOSURE floor underlayment significantly speeds and streamlines construction trade scheduling, provides high early strength and offers outstanding resistance to moisture.

Typical LEVELROCK CSD EARLY EXPOSURE floor underlayments weigh approximately 13 lbs./sq. ft. and require a minimum of 1 in. above the top of the flutes. Pour thickness (as measured from the bottom of the flute) is 1-9/16 in. with a standard 9/16 in. steel deck (minimum 22 gauge). LEVELROCK CSD EARLY EXPOSURE floor underlayment reduces material cost, as well as total project cost, by reducing the weight of the floor system and supporting structure. These products can also provide scheduling advantages and may increase floor space by allowing additional floors to be added due to the lighter-weight construction.

**For further details on installation requirements, specifications and the most up-to-date product information, please see [levelrock.com](http://levelrock.com) and [usgdesignstudio.com](http://usgdesignstudio.com).**

USG® poured cementitious floor underlayment systems provide an economical way to achieve lightweight, fire-resistant, sound-rated, smooth and monolithic floors in residential and light-commercial construction. Typical applications are less labor intensive than many other types of construction and provide high fire ratings characteristic of gypsum systems. Designed sound systems provide for improved STC and IIC ratings when used with LEVELROCK sound attenuation products.

**Note** \*In geographic areas not subject to freezing conditions; only up to 30 days in areas subject to freezing conditions.

### Limitations

When considering the use of this floor system, a licensed structural engineer should first evaluate the building loads and framing system to determine whether this corrugated steel deck flooring system is appropriate.

LEVELROCK CSD EARLY EXPOSURE floor underlayment is not a structural element and does not provide any contribution to the floor diaphragm. The corrugated steel deck must be designed to address all floor diaphragm requirements and must conform to Steel Deck Institute standards. Reference the SDI Manual of Construction with Steel Deck, Section IX Special Considerations for Diaphragms. For additional requirements, please see *LEVELROCK CSD Floor Underlayment Product Line Design Guidelines for use with Corrugated Steel Deck Floor Systems* (IG1741). Contact your USG or ALCORP Marketing representative to request a copy.

1. Do not use in exterior applications.
2. Do not use as a wearing surface.
3. Do not use as a structural element.
4. Do not install below-grade.
5. Do not install at thicknesses greater than 2 in. (as measured from top of flute).
6. Do not install when indoor temperature is below 40 °F. Do not use a salamander-type heater as they produce water vapor at the same time they produce heat.

7. Do not install in any system not meeting the minimum criteria set forth in *LEVELROCK CSD Floor Underlayment Product Line Design Guidelines for use with Corrugated Steel Deck Floor Systems (IG1741)*.
8. Structure shall be designed so that deflection does not exceed L/240 from combined dead and live loads and L/360 from live load. Furthermore, the design criteria for metal deck selection is so the live load deflection does not exceed L/480. Certain floor coverings such as marble, limestone, travertine and wood may have more restrictive deflection limits. Consult the appropriate floor covering manufacturer.
9. Do not use with radiant heat systems. (LEVELROCK® CSD® RH floor underlayment is available for this purpose.)

**Product Data**

**Approximate Compressive Strength (aggregated) ASTM C472 (modified): 3500–5000 psi\***

**Approximate Dry Density (aggregated): 119–127 lbs./cu. ft.**

**Note** \*Compressive strengths published herein were achieved under controlled laboratory conditions. Actual field results may differ due to environmental conditions, regional sand variations, inconsistent proportioning of field applied water, sand and LEVELROCK floor underlayment, as well as differences in mixing/pumping equipment.

**Installation**

CSD primer applied at full strength to the corrugated galvanized steel deck and LEVELROCK CSD EARLY EXPOSURE floor underlayment must be applied only by a USG LEVELROCK applicator. In geographic areas *not* subject to freezing conditions, LEVELROCK CSD EARLY EXPOSURE floor underlayment can be poured up to 60 days before permanent windows and doors are installed (only up to 30 days in areas subject to freezing conditions).

If permanent windows, doors and a roof have not been installed before the time of pour, temporary windows and doors, plus a permanent deck and exterior sheathing, must be installed before the pour commences. Before, during and up to 3 days after installation of the underlayment, the building’s interior temperature must be maintained above 40 °F and below 110 °F. The poured underlayment must be protected from wind until set has occurred, or a minimum of 4 hours after placing material.

LEVELROCK CSD EARLY EXPOSURE floor underlayment will set within 2–3 hours under normal conditions. Light foot traffic can occur after this time; normal trade traffic can resume the next day. LEVELROCK CSD EARLY EXPOSURE floor underlayment will typically require 10–14 days to dry completely. During this period, adequate ventilation and air movement must be provided to ensure uniform drying. High ambient humidity will delay the drying process. Apply the floor covering only when LEVELROCK CSD EARLY EXPOSURE floor underlayment is completely dry.

**UL Designs**

G551, G553, G559, G564, G566 and G571. Additional UL designs may be available. Contact your USG representative or see levelrock.com for the most up-to-date information.

**Compliance**

New York City Department of Buildings MEA (Material and Equipment Acceptance) MEA 133-05-M; HUD–1314; City of L.A. Research Report 25674.\*

**Note** \*ESR pending.

**Submittal Approvals**

<b>Job Name</b>		
<b>Contractor</b>		<b>Date</b>

**Product Information**

See levelrock.com for the most up-to-date product information.

**WARNING!**

When mixed with water, this material hardens and becomes very 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. Portland cement is strongly alkaline. Direct contact can be corrosive and cause

severe damage or chemical burns to the eyes and wet or moist skin. Avoid contact with eyes and skin. Wear eye protection, alkali-resistant protective gloves, long-sleeved shirts and pants to prevent direct contact. If eye contact occurs, immediately flush thoroughly with water for 30 minutes and seek medical advice. Inhalation of dust may be corrosive or cause chemical burns or irritation to nose, throat and respiratory tract. Avoid breathing dust. Use in a well-ventilated area or provide sufficient local ventila-

tion. If dusty, wear a NIOSH/MSHA-approved dust respirator. Wash thoroughly with soap and water after use. Do not ingest. If ingested, call physician. Product safety information: 800.507.8899 or usg.com. **KEEP OUT OF REACH OF CHILDREN.**

**Trademarks**

The following trademarks used herein are owned by United States Gypsum Company or a related company: CSD, EARLY EXPOSURE, FIRECODE, LEVELROCK, RC-1, SHEETROCK, SRM-25, USG, USG in stylized letters. LEED is a registered trademark of U.S. Green Building Council.

**Notice**

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.

**Safety First!**

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read MSDS and literature before specification and installation.

