

# Levelrock® Floor Underlayment

## 4500 NXG™

**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 underlayment products

- Innovative, self-sealing technology
- Fast application, fast-setting allows for return of light trade traffic within hours
- High compressive strength—stands up to commercial and industrial use
- Ideal for renovating concrete subfloors—can be applied at various thicknesses
- Smooth, crack-resistant surface
- Applied by USG-authorized applicators

### Description

LEVELROCK® 4500 NXG™ floor underlayment is a cementitious underlayment designed by USG for interior use in commercial, institutional and rehab construction. It provides a smooth, hard underlayment surface over concrete slabs, pre-stressed concrete and concrete planks at thicknesses from featheredge (with proper sand) to 2". Suitable for a variety of floor coverings, LEVELROCK 4500 NXG floor underlayment exceeds commercial vinyl floor-covering requirements as a high-performance underlayment with compressive strengths of up to 5500 psi.

Quick set times and high production rates allow for traffic within hours of installation. The exceptional surface hardness of LEVELROCK 4500 NXG floor underlayment resists indentation from trade traffic. LEVELROCK 4500 NXG floor underlayment features an innovative self-sealing technology that typically permits the floor covering to be installed without the need to seal the underlayment—minimizing installation cost and time. Once LEVELROCK 4500 NXG floor underlayment is dry, floor coverings of any type may be applied directly to the underlayment surface.

USG poured underlayment products are mixed with sand and water at the job site to yield a lightweight, leveling slurry. A 1/2" thick underlayment weighs approximately 5 lbs./sq. ft. and has an approximate dry density range of 123-130 lbs./cu. ft. USG poured underlayment systems provide an economical way to achieve lightweight, fire-resistant, sound-rated, self-leveling floors in residential and light-commercial construction. Designed sound systems provide for improved STC and IIC ratings when used with an acoustical mat or board.

### Limitations

- Do not use in exterior applications.
- Do not use as a wearing surface.
- Do not install where continuous exposure to moisture is a possibility (for instance, exterior balconies, or large commercial/institutional shower rooms).
- Do not install on deflections exceeding L/360.
- Do not install in below-grade applications.

### 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 floor underlayment, which typically occurs within 5-7 days at a 1/2" thickness.

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. Cracks due to building movement, if not addressed properly, will eventually telegraph through LEVELROCK 4500 NXG floor underlayment. For 1/2" or thicker pours, the use of perimeter isolation strip may be recommended. Respect existing expansion and control joints.

For on-grade applications, first check for moisture vapor emission rate (MVER). Building location relative to surrounding grade will greatly influence MVER. Contact manufacturer's representative for specific recommendations when vapor transmission is greater than 3 lbs./1000 sq. ft./24 hours.

Application of LEVELROCK™ floor underlayment concrete primer to the subfloor is necessary to provide maximum bond between the underlayment and the subfloor. For rehab work, cracks that are present in the subfloor may telegraph through the underlayment. Building movement and severity of cracks will be a factor in their reappearance. LEVELROCK 4500 NXG floor underlayment is not a structural element and will not remediate structural issues.



Pre-treatment of minor cracks (1/8" or less) with DUROCK™ tile membrane or a high-quality grout can help minimize their reoccurrence in the surface of LEVELROCK 4500 NXG floor underlayment. For cracks wider than 1/8" or telegraphing of cracks, a premium-grade epoxy grout may minimize reoccurrence. Consult the grout manufacturer. USG makes no claims regarding grout performance.

New concrete slabs that are receiving poured underlayment systems must be cured properly (a minimum of 28 days) prior to the underlayment installation. Concrete slabs should be treated properly with LEVELROCK floor underlayment concrete primer according to USG's recommendations. For wood floors, contact USG for specific recommendations.

Making sure that LEVELROCK 4500 NXG floor underlayment is dry is an important step prior to the floor-covering application. Typical dry times for a 1/2" thickness are 3–5 days, depending on environmental conditions. Good airflow and air exchange within the building is critical during the drying process. Check for drying by using a plastic sheet placed strategically within the room (per ASTM D4263). Several locations may have to be checked. A quick and easy alternative is the use of a radio-frequency moisture meter such as the Protimeter Surveymaster® or Protimeter Aquant® to quickly survey the floor to determine if any damp spots remain. In either test method, pay special attention to areas of greater thickness or poor air flow.

LEVELROCK 4500 NXG floor underlayment is specially formulated with a built-in sealer. Thus, for most floor coverings, the application of a primer or sealer to LEVELROCK 4500 NXG floor underlayment is not necessary or recommended. However, the recommendations of the floor-covering manufacturer will always take precedence over those presented here. If a floor-covering manufacturer's primer is used, a bond test for compatibility should be conducted.

**Product Data**

**Approximate Compressive Strength (aggregated) ASTM C472 (modified):** 4500-5500 psi\*  
**Approximate Dry Density (aggregated):** 125 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.

**UL Designs**

G230, G516, G562, J917, J919, J920, J924, J927, J931, J957, J966, J991, J994, K906, L206, L501, L502, L505, L506, L508, L511, L512, L513, L514, L515, L516, L518, L521, L523, L524, L525, L526, L527, L528, L529, L530, L532, L534, L535, L536, L537, L538, L539, L541, L542, L543, L547, L548, L549, L550, L551, L552, L553, L555, L556, L557, L559, L560, L562, L563, L565, L568, L569, L570, L571, L573, L574, L577 and L588.

Additional UL designs may be available. Contact your USG representative for more information.

**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 ventilation. 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.**

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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.



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