Submittal Sheet

Levelrock® Floor Underlayment



2500 2500 Green

Premium poured cementitious flooring underlayment products

- Fast application, fast-setting allows for return of light trade traffic within hours
- Industry's most economical, highest compressive strength in class
- Ideal for wood-frame and multi-family construction
- UL designs available up to 2-hour fire rating
- Smooth, crack-resistant surface
- Helps maximize sound isolation between floors/units
- May assist in obtaining LEED® credits
- Applied by USG LEVELROCK authorized applicators

Description

Levelrock® 2500 and Levelrock® 2500 Green floor underlayment are fast-applying cementitious floor underlayments formulated and manufactured by USG® for indoor use in multi-family, light-commercial and other wood-frame construction. These high-strength underlayments can be poured before drywall is installed,* so they dry faster and help prevent mold by not exposing wallboard to high moisture levels. Levelrock 2500 and 2500 Green floor underlayments are also economical, as they can be applied at rates of up to 30,000 sq. ft. per day. They are formulated to provide typical compressive strengths from 2000 psi to 3200 psi at a ¾ in. minimum thickness over plywood subflooring, which meets requirements for multi-family and hotel/motel construction.

LEVELROCK 2500 Green floor underlayment is made with recaptured gypsum, from the flue gas desulfurization of the process used to clean combustion gases from fossil-fuel-burning power plants. This process is used to greatly reduce emissions of sulfur dioxide which helps the environment by reduction of harmful acid rain. The use of this recaptured gypsum also eliminates the need to dispose of the material in landfills as a solid waste. In addition, Levelrock 2500 Green floor underlayment may assist in obtaining LEED credits 4.1 and 4.2, while both Levelrock 2500 and 2500 Green floor underlayment may assist in obtaining LEED credits 5.1 and 5.2.

USG poured cementitious underlayment products are mixed with sand and water at the job site to yield a lightweight underlayment with a smooth and monolithic surface. A ¾-in. thick underlayment weighs approximately 7.5 lbs./sq. ft. and has an approximate dry density range of 114-124 lbs./cu. ft.

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.

 $\textbf{Note} \ ^{\star} \textbf{Consult USG regarding specific performance requirements}.$

Limitations

- 1. Do not use in exterior applications.
- 2. 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).
- 4. Do not install in below-grade applications. Contact USG for on-grade application recommendations.
- 5. Install only on tongue-and-groove edge plywood or OSB, or square-edge wood subfloor with back-bracing.
- 6. Structure shall be designed so that deflection does not exceed L/360 live or dead load. Certain floor coverings such as marble, limestone, travertine and wood may have more restrictive deflection limits. Consult the appropriate floor covering manufacturer.



Installation

During the entire installation process, the building must be enclosed and the temperature maintained at a 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 to 7 days at a 3/4 in. thickness. Protect floors from heavy trade traffic loads (i.e. loaded drywall carts, heavy tool cabinets, etc.) with plywood. The application of LevelrockTM floor underlayment primer to the subfloor is necessary to provide maximum bond between the underlayment and subfloor.

Concrete subfloors receiving cementitious underlayment systems must be cured properly (generally for a minimum of 28 days) prior to the underlayment installation. For on- or above-grade applications on concrete subfloors or concrete planks, measure the Moisture Vapor Emission Rate (MVER) using ASTM F1869. MVER should be below 5 lbs./1000 sq. ft./24 hrs. Contact USG for further information. Concrete subfloors should be treated properly with Levelrock™ floor underlayment concrete primer, according to USG recommendations. Refer to Levelrock Floor Underlayment Finished Floor Installation Guidelines (IG1457) for floor-covering installation.

For further details on installation requirements, specifications and the most up-to-date product information, please see levelrock.com.

Product Data

Approximate Compressive Strength (aggregated) ASTM C472 (modified): 2000-3200 psi*

Approximate Dry Density (aggregated): 114-124 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.

Test Data

Sound

USG has conducted a variety of sound tests on underlayment systems at NVLAP-accredited laboratories. These tests have been in conformance with ASTM E90 and E492. Consult USG publications IG1650 and SA305 for STC and IIC results on a variety of floor coverings meeting current code requirements.

UL Designation Type LRK

G230, G516, G535, G556, G562, J917, J919, J920, J924, J927, J931, J957, J966, J991, J994, K906, L206, L501, L502, L505, L506, L508, L510, 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, L549, L550, L551, L552, L555, L556, L557, L560, L562, L563, L565, L568, L569, L570, L573, L574, L577, L583, L588, L592, M502, M503 and M504.

For the most up-to-date UL Designation Type LRK, contact your USG representative.

Compliance

New York City Department of Buildings MEA (Material and Equipment Acceptance) MEA 236-01-M; HUD-1314; ICC Evaluation Service Legacy Report No. ER-5885.*

Note *ESR pending.

Submittal Approvals

Job Name

Contractor

Product Information

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

For the most up-to-date information on LEED rating systems, project certification and the U.S. Green Building Council, please visit usgbc.org. **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 eve 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. VOC Content: Zero g/L

Trademarks

Date

The following trademarks used herein are owned by United States Gypsum Company or a related company: LEVELROCK, 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.



Levelrock[™] Floor Underlayment



Primer

High-quality floor underlayment primer

- Enhances bond between substrate and underlayment
- Low odor
- Fast-drving
- Resists mold

Description

Levelrock™ floor underlayment primer products (ready-mixed, concentrate and powdered) are designed and manufactured by USG to improve adhesion to wood subfloors. Levelrock floor underlayment primer can also be used to improve adhesion to old floor coverings such as vinyl tile, ceramic tile, linoleum and varnished wood floors. The surfaces of these floors must be sound and non-friable. For old and new concrete floors, use Levelrock™ floor underlayment concrete primer.

The primers are sprayed, broomed on or paint-roller-applied to the substrate by USG Levelrock applicators prior to installing Levelrock floor underlayments in all types of commercial and residential flooring applications. These primers emit low odor, and are offered in ready-to-use form or in concentrate or powdered form after diluting with water. They are fast drying and resist mold.

Limitations

- 1. Do not use in exterior applications.
- 2. Do not apply at temperatures below 45 °F or above 120 °F.
- 3. Do not apply on excessively dusty or dirty subfloors.

Application

Read and follow all cautions and warnings on Levelrock floor underlayment primer product labels. Refer to each product's Material Safety Data Sheet for additional information. Floor to be primed must be sound, clean, free of alkali and dry. Remove dirt, wax, polish, paint and all foreign material that would interfere with a good bond.

Minimum dry time for primer application is 1 hour. Dry times up to 3 hours will greatly enhance bond strength of underlayment to subfloor. A minimum building temperature of 45 °F must be maintained for all Levelrock floor underlayment primers during the drying period. Cooler temperatures and high humidity will prolong dry times.

For further details on application requirements and the most up-to-date product information, please see levelrock.com.

Storage

Protect from freezing, and do not store above 120 °F. LEVELROCK floor primer (ready-mixed and concentrate) has limited freeze thaw protection. If accidentally frozen, allow to thaw at room temperature. Stir to a homogenous state before using. Do not use material that is coagulated or has excessive settlement that cannot be readily remixed. Discard questionable material. Do not over-stir or use a high-speed mixer, as excessive air entrainment may result.

LEVELROCK floor underlayment primer (powdered), in dry form, is not affected by freezing temperatures, but should be stored in a dry area. In mixed form, it may be stored for up to 2 weeks, but must be remixed prior to use, as some settlement will occur. Do not use material that has excessive settlement that cannot be readily remixed.



Submittal Approvals	Job Name		
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Product Information

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

Mist, vapors and/or dust may cause irritation to eyes, skin, nose, throat and upper respiratory tract. Avoid irritation by reducing exposure to mist, vapors and/or dust. Use in a well-ventilated area or provide sufficient local ventilation. If misty/high vapor levels/ dusty, wear a NIOSH/MSHAapproved mist, vapor or dust respirator. Wear eye protection. If eye contact occurs, flush thoroughly with water for

15 minutes. If irritation persists, **Trademarks** call physician. Wash with soap and water after use. Do not ingest. If ingested, call physician. Do not use if material has spoiled, i.e., there is a moldy appearance or an unpleasant odor. Close container and discard properly. Product safety information: 800 507.8899 or

usq.com. **KEEP OUT OF REACH OF** CHILDREN.

VOC Content: <50 g/l

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Levelrock[™] Floor Underlayment

All Purpose Sealer

All purpose sealer and bonding agent

- Seals Levelrock® floor underlayments
- Enhances bond between floor-covering adhesive and underlayment
- One-coat application
- Light red tint helps identify application
- Applied by USG Levelrock authorized applicators or floor-covering installers

Description

LEVELROCK TM floor underlayment all purpose sealer can be applied to most LEVELROCK floor underlayments prior to application of floor-covering adhesives to enhance the bond between the underlayment and the adhesive. Levelrock all purpose sealer can be applied by the floor covering manufacturer or a USG Levelrock authorized applicator. The recommendations of the floor-covering and adhesive manufacturers will supersede those presented here. Levelrock all purpose sealer is a concentrated formula and must be diluted prior to use. All purpose sealer is tinted light red to identify application and just one coat application is recommended.

Limitations

- 1. Do not use in exterior applications.
- 2. Do not use as a wearing surface.
- 3. Do not install where continuous exposure to moisture is a possibility (for instance, exterior balconies, or large commercial/institutional shower rooms).
- 4. Do not install in below-grade applications.
- 5. Do not install on excessively dusty floors.
- Do not use on Levelrock floor underlayments with self-sealing technology (Levelrock® 4500 NXG® and Levelrock® Quik-Top™ floor underlayments).

Mixing

Equipment

Electric drill and a Jiffy $^{\! @}$ mixer.

Ratio

1 part Levelrock all purpose sealer to 4 parts water by volume.

Instructions

Add Levelrock all purpose sealer concentrate to water. Mix slowly using an electric drill and a Jiffy mixer so as not to incorporate any air. 5 prepared gallons of Levelrock all purpose sealer will cover approximately 1500 sq. ft. A 53 gallon drum of Levelrock all purpose sealer will cover 79,500 sq. ft. If all of the mixed material is not used on the day it was prepared, mix again prior to use.

Application

Equipment

Hudson® sprayer or broom apply for large areas; paint roller for small areas. Protect drywall from Levelrock all purpose sealer.

Instructions for USG LEVELROCK Authorized Applicator

LEVELROCK all purpose sealer can be applied to LEVELROCK floor underlayment by a USG LEVELROCK authorized applicator 2 hours after the underlayment has been installed; or as soon as the floor can be safely walked on. Exception — NOT FOR USE with LEVELROCK 4500 NXG or LEVELROCK QUIK-Top floor underlayments, as these contain a built-in sealer.

At the jobsite, Levelrock all purpose sealer and the underlayment must be maintained between 50-95 °F for 48 hours before, during and after job completion. Radiant heat systems should be shut down and cooled off during application and drying of the sealer. Underlayment must be free of dirt, wax, polish, paint, excess dust



or other contaminates before application of sealer. Should the surface of the Levelrock floor underlayment be excessively dusty, contact your Levelrock/Alcorp Network rep for further instructions.

Spray apply Levelrock all purpose sealer for best results. When spray-applying, a uniform application is critical. Voids may compromise the sealer performance and detrimentally affect adhesive bond. May also be broom- or roller-applied. Apply diluted solution of sealer at a rate of 300 sq. ft./gal. (see mixing instructions). Do not allow sealer to puddle, back-roll if necessary. For smaller areas, a roller may simplify application. One coat application recommended. Levelrock all purpose sealer is not a wear surface.

Instructions for Finished Floor Goods Contractor

If the surface of the underlayment has a light red color, this is an indication that the surface has already been treated by the Levelrock applicator. No further sealing of the surface is recommended. However, in areas subject to extended trade traffic, the sealer may have worn off. Place a drop of water onto suspect areas. Rapid absorption of water indicates a need for re-coating in that area. Levelrock all purpose sealer can be applied to dry Levelrock floor underlayment. Determine underlayment dryness using a Protimeter® moisture meter or use the plastic sheet method per ASTM D4263. Exception – NOT FOR USE with Levelrock 4500 NXG or Levelrock Quik-Top floor underlayments, as these contain a built-in sealer.

At the jobsite, Levelrock all purpose sealer and underlayment must be maintained between 50-95°F for 48 hours before, during and after job completion. Radiant heat systems should be shut down and cooled off during application and drying of the Levelrock all purpose sealer. Underlayment must be free of dirt, wax, polish, paint, excess dust or other contaminates before application of Levelrock all purpose sealer. Should the surface of the Levelrock floor underlayment be excessively dusty, consult with the owner or general contractor of the project.

For best results, Levelrock all purpose sealer must be applied at least 2 hours prior to application of any adhesive overlays. In all cases, a field bond test must be conducted with the proposed adhesive to be used for the job.

Spray apply Levelrock all purpose sealer for best results. When spray-applying, a uniform application is critical. Voids may compromise the sealer performance and detrimentally affect adhesive bond. May also be broom- or roller-applied. Apply diluted solution of sealer at a rate of 300 sq. ft./gal. (see mixing instructions). Do not allow sealer to puddle, back-roll if necessary. For smaller areas, a roller may simplify application. One coat application recommended. Levelrock all purpose sealer is not a wear surface.

Storage

Outside storage of Levelrock all purpose sealer during freezing conditions is not recommended. Discard sealer if it becomes frozen. Sealer should appear as a homogeneous, smooth mixture. Discard if "cottage cheese" type lumps are evident. Dispose of material properly. During summer months, do not store sealer above 120° F.

Cleanup

Clean tools with water before Levelrock all purpose sealer dries. Use mineral spirits to clean dried sealer. Carefully read manufacturer's warnings and instructions before using mineral spirits.

Submittal Approvals

Job Name

Contractor Date

Product Information

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

WARNING!

Mist, vapors and/or dust can cause irritation to eyes, skin and respiratory tract. Wear eye, skin and respiratory protection as necessary per working conditions. If eye contact occurs flush with

water for 15 minutes. 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: LEVELROCK, NXG, QUIK-TOP, USG, USG in

stylized letters. Hudson is a trademark of H.D. Hudson Manufacturing Co., Jiffy is a trademark of Jiffy Mixer Co. Inc., Protimeter is a trademark of GE.

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.

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Product Data

Quiet Qurl®65/075 RF MT

With Fiberglass Reinforced and Muffling Technology Enhancement

A Noise Control Mat

Description

Quiet $\operatorname{Qurl}^{\circledR}$ 65/075 RF MT is a nominal 0.75-inch sound control mat made from a random-filament, geometric patterned nylon core that is designed to limit impact noise between floors.

It is produced from an extruded polymer matrix of tangled monofilaments, which are heat-welded at the junctions to form a resilient structure that absorbs noise when sandwiched in a mass-spring-mass building design.

The top side is made with a coated fiberglass scrim and fabric combination to give the gypsum concrete some added tensile strength. Testing has shown that the addition of a combination fiberglass scrim and fabric will enhance tensile strength up to 20%. The 95% void means that the finished floor will only have 5% contact with the subfloor, greatly limiting vibration.

On the bottom side of the core is the performance enhancing MT high loft fabric, KEENE's patent pending Muffling Technology. The MT fabric has the ability to add 5 to 7 IIC points to a mat's performance through diffusion of air pressure in the cavity.

Quiet Qurl® 65/075 RF MT is fitted with Zip-Strip adhesion technology. Zip-Strip, a quick peel adhesive strip, is applied to the selvage edge to promote a quick and cost effective installation solution.

Applications

- ✓ Retrofit applications of old buildings – especially historical tax credit apartments and future condominiums
- ✓ Loft conversions
- ✓ With hard surfaces: concrete, stone, tile, vinyl and hardwood
- With topping layers: gypsum concretes, lightweight concrete, mortar beds and plywood
- ✓ When ceiling construction is not an option

Features and Benefits

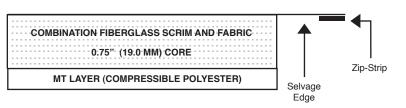
Lightweight and easy to handle

Zip-Strip included for simple and fast installation

Highest performing sound mat available

Reinforced for strengthening concrete pour

No secondary reinforcement needed



Physical Properties

Description	Means of Measurement English/Metric		Value English/Metric	
Core Polymer			Nylon	
Thickness	Inches	Mm	0.75	19.0
Total Weight	oz/yd²	g/m²	22.7	770
Core Weight	oz/yd ²	g/m²	17.7	590
Fabric Weight	oz/yd ²	g/m²	2.3	75
MT Fabric Weight	oz/yd ²	g/m²	3.0	105

Packaging

Description	Means of Measurement English/Metric		Value English/Metric	
Core Width	Inches	СМ	48.0	122
Length	Feet	Meters	50.0	15.2
Area	Square Feet	Square Meters	200	18.6
Roll Weight	Pounds	Kg	30.0	13.6

Impact Insulation Classification

Subfloor Type	Ceiling	Floor Type	IIC Number
Old Mill Rehab	No Ceiling	Engineered Wood	59

Tests performed by Veneklasen Associates

See installation instructions for methods and procedures.

LIMITED WARRANTY: Keene Building Products, Inc. warrants to the initial purchaser only that the goods sold hereunder will be free from defects in material and workmanship and, except as otherwise set forth herein, will conform to the specifications provided. If any failure to meet this warranty appears within one year from the date of shipment of the goods, on the condition that Keene Building Products, Inc. will correct any such failure by either replacing or repairing any defective goods, at Keene Building Products, Inc.'s option.

The preceding paragraph sets forth the exclusive remedy for all claims based on failure of or defect in the goods sold hereunder, whether such failure or defect arises before or during the warranty period and whether a claim, however instituted, is based on contract, indemnity, warranty, tort (including negligence), strict liability or otherwise. The forgoing warranty is exclusive and is in lieu of all other warranties whether written, oral, implied or statutory.

