



USG DUROCK™ BRAND QUIK-RAMP™ FLOOR PATCH

Calcium aluminate cement-based floor patch

- Ideal for ramping, patching and skim coating
- Use over concrete and wood subfloors; terrazzo, ceramic and quarry tile, and other specialty applications
- Fast application, fast setting
- Durable and strong—up to 6,000 psi
- Featheredge to 2" neat; deep fills up to 5" when extended for concrete and nonporous substrates
- Install flooring in as little as one hour; moisture-sensitive adhesives require 16 hours
- May assist in obtaining LEED® credits

DESCRIPTION

USG Durock™ Brand Quik-Ramp™ floor patch is a calcium aluminate cement-based product for interior use over concrete and wood subfloors, as well as terrazzo, ceramic and quarry tile, and other nonporous substrates prior to applying floor coverings. Fast applying and fast setting, USG Durock™ Quik-Ramp floor patch may also be used over specialty applications including properly prepared non-water-soluble adhesive residues, burnished concrete and epoxy coatings.

Ideal for ramping, USG Durock™ Quik-Ramp floor patch can be trowel-applied to create smooth transitions in both new and renovation construction. USG Durock™ Quik-Ramp is easy to apply and strong—up to 6,000 psi. Versatile, it can also be used for patching and skim coating over a variety of substrates and it's quick—floor coverings may be installed in as little as one hour after set (moisture-sensitive adhesives require 16 hours).

INSTALLATION

SUBFLOOR PREPARATION

All subfloors must be structurally sound, stable and solid. If there is any question about the structural soundness of the subfloor, consult with the engineer on the project or request the services of a professional structural engineer.

Subfloors must be clean and free of dirt, tar, wax, oil, grease, latex compounds, sealers, curing compounds, release agents, asphalt, water-soluble adhesives, paint, chemicals, loose old cementitious products, joint compounds from drywall installation or any other contaminant that might prevent proper bonding of USG Durock™ Quik-Ramp floor patch to the host substrate.

Read submittal and SDS before USG Durock™ Quik-Ramp floor patch application.

TOOLS

- Mixing bucket
- Trowels
- Razor scraper
- Mixing drill type 2 through 7—as outlined in the *Technical Guidelines*, prepared by the International Concrete Repair Institute, *Pictorial Atlas of Concrete Repair Material Mixing Equipment* (Guideline No. 320.5R 2014)
- Mixing paddle type 2, 3, 4, 8 or 9—as outlined in the *Technical Guidelines*, prepared by the International Concrete Repair Institute, *Pictorial Atlas of Concrete Repair Material Mixing Equipment* (Guideline No. 320.5R 2014)

MIXING

RATIO

Five parts USG Durock™ Quik-Ramp floor patch to one part water by weight, or 4.5–5.5 quarts (4.25–5.20 liters) of water per one 50 lb. bag of USG Durock™ Quik-Ramp floor patch.

INSTRUCTIONS

To mix a 50 lb. bag of USG Durock™ Quik-Ramp floor patch, first add 4.5–5.5 quarts (4.25–5.20 liters) of clean water to a mixing bucket, then add the floor patch. Mix with a paddle and drill. To mix smaller quantities by hand, use five (5) parts USG Durock™ Quik-Ramp floor patch to one (1) part water by weight. Mix vigorously for two to three minutes with a trowel to achieve a thick, lump-free, mortar-like consistency. Do not overwater.

Use USG Durock™ Quik-Ramp floor patch within 15–25 minutes after mixing. Remix (without adding water) as needed within this time frame. Dispose of any USG Durock™ Quik-Ramp floor patch once setting has occurred.

APPLICATION

During application and until USG Durock™ Quik-Ramp floor patch is set (typically within 25–35 minutes, depending on floor patch thickness) close all doors, windows and other openings in the building and turn off HVAC systems to prevent air drafts. Protect installation areas from direct sunlight exposure during setting time. Thereafter, the HVAC system can resume, as well as the use of doors, windows and other openings.

The subfloor, room temperature and USG Durock™ Quik-Ramp floor patch product—either mixed or in powdered form—must be between 50°F and 95°F at the time of application and for 72 hours after installation of USG Durock™ Quik-Ramp floor patch. For temperatures above 95°F, consult USG.

It is recommended to patch several small test areas before conducting full installation of USG Durock™ Quik-Ramp floor patch. The test areas must also include finish flooring to establish suitability of the complete system for intended use.

USG Durock™ Quik-Ramp floor patch has a working time of approximately 15–25 minutes at 70°F/50% RH (at higher temperatures the working time is shortened; at lower temperatures the working time is extended). USG Durock™ Quik-Ramp floor patch will set in approximately 25–35 minutes under normal conditions, depending on floor patch thickness. Light foot traffic can occur approximately 30 minutes after skim coat sets; higher thicknesses require additional drying time. After USG Durock™ Quik-Ramp floor patch is firmly set, provide adequate ventilation to ensure uniform drying of the installed floor patch. High ambient humidity and higher thicknesses will delay the drying process. Protect floors from heavy trade traffic loads (i.e., loaded drywall carts, heavy tool cabinets, etc.) with plywood.

CONCRETE SUBFLOORS

Concrete subfloors receiving cementitious floor patch must be cured properly (generally for a minimum of 28 days) prior to floor patch installation. Subfloor moisture vapor emission rate (MVER) exceeding 5 lbs./1,000 sq. ft./24 hours per ASTM F1869-11 must be treated with USG Durock™ Brand RH-100™ Moisture Vapor Reducer or an appropriate moisture mitigation system that either limits the flooring system's moisture vapor exposure to acceptable levels, or completely stops the vapor transmission through the top of the subfloor. USG Durock™ Quik-Ramp floor patch is not a vapor barrier. Transmission of excessive moisture vapors from the concrete subfloor through USG Durock™ Quik-Ramp floor patch can interfere with floor-covering adhesives and compromise their performance. Ensure compatibility of the moisture mitigation system with the USG Durock™ Quik-Ramp floor patch by a test application in small areas. If sand broadcasting is not required during the installation of the moisture mitigation system, the surface must be primed with a USG Durock™ Brand primer prior to application of USG Durock™ Brand floor patches. Contact USG Technical Service (800 874-4968) for further information regarding suitable moisture mitigation products and systems for use with USG Durock™ Quik-Ramp floor patch.

A weak or degraded concrete surface layer must be removed mechanically to provide a solid base. To decide whether mechanical preparation of substrate is required or not, the concrete substrate must be thoroughly assessed for its quality and tensile strength over the entire application area. The assessment of concrete tensile strength must be made in its existing state without the removal of any foreign material that may be present on the concrete surface. Simple visual appearance of concrete substrate as strong and solid does not necessarily guarantee that the concrete substrate is free of impurities and has the right tensile strength.

Concrete exhibiting signs of laitance (a layer of weak material on the concrete surface either visible or invisible), scaling, spalling, crumbling or delamination must be mechanically removed to achieve a solid and clean substrate. Prior to installation of the floor patch, mechanically profile concrete subfloor to a minimum of CSP 3, in accordance with the industry standards as outlined in the International Concrete Repair Institute (ICRI) Technical Guideline No. 310.2 *Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays*.

CONCRETE SUBFLOORS CONT.

Use mechanical removal methods such as shot blasting, scarifying or diamond grinding to clean and prepare the concrete subfloor contaminated with adhesives, asphalt or oil. Shot blasting is the preferred method of mechanically profiling and preparing the concrete subfloor for the application of USG Durock™ Quik-Ramp floor patch.

Cracks in the existing concrete subfloor must be inspected to determine if the crack is due to typical concrete "shrink" or if it is a result of a structural movement. In the case of the latter, remediation of the crack must be addressed or eventually the crack will telegraph through USG Durock™ Quik-Ramp floor patch. Repair all existing cracks in old and new concrete to minimize and control their ability to telegraph through the layer of USG Durock™ Quik-Ramp floor patch. Remove the weak concrete along the length of the cracks by chiseling or other suitable means. Remove accumulated dust and debris from the crack cavities using a vacuum or other suitable means. Various cracks present in the concrete subfloor, including shrinkage cracks, must be filled with a suitable commercially available crack-fill epoxy adhesive designed for concrete flooring applications. To ensure superior resistance to crack growth, use injection epoxy crack-repair techniques per manufacturer guidelines to repair cracks that are active or deep. Note that repair of existing cracks in the concrete subfloor only subdues but does not completely prevent their ability to telegraph through USG Durock™ Quik-Ramp floor patch. Growth of existing cracks or formation of new cracks in the concrete subfloor can lead to cracks telegraphing through USG Durock™ Quik-Ramp floor patch. Respect existing expansion and control joints (see Notes/Limitations #8, pg. 4).

Priming is not required for skim coat applications over concrete. For deep fills or ramping (featheredge to 2"), prime the subfloor with USG Durock™ Brand Primer-Sealer for preparing the subfloor prior to application of USG Durock™ Quik-Ramp floor patch. Refer to *USG Durock™ Brand Primer-Sealer* submittal (CB519) at usg.com for installation instructions and application rates. USG Durock™ Quik-Ramp floor patch may be applied from skim coat to 2" thick neat, or 5" thick when properly extended over concrete subfloors.

WOOD SUBFLOORS

USG Durock™ Quik-Ramp floor patch can be applied over engineer-approved, APA-Rated exterior glue plywood or oriented strand board (OSB) (i.e., APA-Rated Exterior or Exposure 1 panels) wood subfloors. Subfloor must be properly prepared. See Notes/Limitations #20, pg. 5 for subfloor deflections.

Before application, sand wood subfloor down to clean wood; secure loose boards with deck screws. Next, use USG Durock™ Primer-Sealer for preparing the subfloor prior to application of USG Durock™ Quik-Ramp floor patch. Refer to *USG Durock™ Brand Primer-Sealer* submittal (CB519) at usg.com for installation instructions and application rates. USG Durock™ Quik-Ramp floor patch may be applied from skim coat to 1/4" thick, and up to 3/4" in well-defined areas over wood subfloors.

DEEP FILL APPLICATION

Ensure that all deep fill application subfloors are properly prepared and primed. See Application, Concrete Subfloors (pg. 2) and Specialty Applications, Nonporous (pg. 3) for preparation details. For concrete and nonporous substrates, USG Durock™ Quik-Ramp floor patch can be extended using clean, dry and graded 3/4"-3/8" granite or pea gravel. If aggregate is wet before mixing, decrease the water requirement to achieve a thick, lump-free, creamy consistency. Mixture should completely coat the aggregate. Do not overwater, as this may cause the USG Durock™ Quik-Ramp floor patch to not adhere to the aggregate. Mix USG Durock™ Quik-Ramp floor patch following mixing instructions (see Mixing, pg. 1), then add aggregate up to one part by volume. Do not use sand or limestone. Mix thoroughly until all aggregate is completely coated. Place the mixed material immediately.

SPECIALTY APPLICATIONS

Ensure that all specialty application subfloors are properly prepared. Weak or degraded concrete layers must be removed mechanically to provide a solid base. See Application, Concrete Subfloors (pg. 2) for further information.

ADHESIVE RESIDUES

USG Durock™ Quik-Ramp floor patch can be installed over non-water-soluble adhesives on concrete only. The adhesive residue must first be tested to make certain it is non-water-soluble. Any water-soluble adhesive residues must be mechanically removed down to clean concrete. Non-water-soluble adhesive residues should be prepared to a thin, well-bonded residue using the "wet-scraping" technique as recommended by the Resilient Floor Covering Institute's *Recommended Work Practices for Removal of Resilient Floor Coverings* (rfci.com) to remove thick areas and adhesive buildup, as well as any areas that are weak or not well bonded to the concrete. Any existing patches below the adhesive must be completely removed.

Priming is not required. USG Durock™ Quik-Ramp floor patch may be applied from skim coat to 1/8" thick maximum over adhesive residues.

NONPOROUS (BURNISHED CONCRETE,
TERRAZZO, CERAMIC AND QUARRY TILE,
AND EPOXY COATINGS)

FLOOR-COVERING INSTALLATION

NOTES/LIMITATIONS

All nonporous substrates must be solidly bonded to the existing subfloor and be clean and sound. After a solid base has been achieved, abrade substrate to a dull finish, then remove all dust with a vacuum or mop.

Prime the substrate with USG Durock™ Primer-Sealer or for preparing the subfloor prior to application of USG Durock™ Quik-Ramp floor patch. Refer to *USG Durock™ Brand Primer-Sealer* submittal (CB519) at usg.com for installation instructions and application rates. USG Durock™ Quik-Ramp floor patch may be applied from skim coat to 2" neat, or 5" thick when properly extended over nonporous substrates.

- A skim coat application of USG Durock™ Quik-Ramp floor patch can be walked on 30 minutes after set (70°F/50% RH). Thicker applications, cooler temperatures, high humidity and inadequate ventilation can extend drying times.
 - Breathable floor coverings can be installed after USG Durock™ Quik-Ramp floor patch has fully set, so as not to damage the surface. Nonbreathable floor coverings requiring special adhesives that are sensitive to moisture can be installed after 16 hours.
 - Check with floor-covering and adhesive manufacturers for installation guidelines and suitability of their manufactured products over USG Durock™ Quik-Ramp floor patch.
 - Protect the surface of USG Durock™ Quik-Ramp floor patch from contaminants and water until installation of floor covering is accomplished.
 - Perform field bond test to determine adhesive/flooring performance over USG Durock™ Quik-Ramp floor patch.
 - Follow floor-covering manufacturers' recommendations for surface-sealing requirements. If the floor-covering or adhesive manufacturer requirements are more stringent, their requirements take precedence.
-

1. Do not use in exterior applications.
2. Do not use as a wear surface.
3. Do not install where continuous exposure to moisture is a possibility.
4. Do not install over dimensionally unstable, improperly prepared, weak subfloors.
5. Do not install over concrete subfloor less than 28 days old. For untreated (without an approved moisture mitigation system) concrete subfloors less than 28 days old, contact USG.
6. For below-grade applications, contact USG.
7. Do not use over sound mat.
8. Do not use over expansion or isolation joints. Continue all movement joints in the concrete slab up through the layer of underlayment. In areas where the expansion or isolation joints are not present in the floor or where the concrete slab has developed systematic cracks in response to slab movement, consult with an engineer on the project or request services of a professional structural engineer to provide such joints as part of the system in accordance with engineering requirements and industry standards.
9. Existing cracks in the new and old concrete must be repaired with an appropriate crack-repair material in accordance with industry recommendations prior to installation of USG Durock™ Quik-Ramp floor patch. Note that repair of existing cracks in the concrete subfloor only subdues but does not completely prevent their ability to telegraph through USG Durock™ Quik-Ramp floor patch. Growth of existing cracks or formation of new cracks in the concrete subfloor can lead to cracks telegraphing through the floor patch.
10. When the MVER exceeds 5 lbs./1,000 sq. ft./24 hours, treat the concrete subfloor with USG Durock™ RH-100 moisture vapor reducer in all areas of use where potential for moisture problems may exist. USG Durock™ Quik-Ramp floor patch is not a vapor or moisture barrier. Transmission of excessive water vapors or moisture from the concrete subfloor through the USG Durock™ Quik-Ramp floor patch can interfere with floor-covering adhesives and compromise their performance.
11. For on-grade applications, use USG Durock™ RH-100 moisture vapor reducer over concrete. Moisture mitigation system may not be needed if a vapor retarder is installed below the concrete slab in accordance to industry specifications and practice (ASTM E1745, ASTM E1993, ASTM E1693) and the MVER value of the concrete slab is below 5 lbs./1,000 sq. ft./24 hours.
12. Do not use acid etching as a method of cleaning and preparing the concrete subfloor.
13. Do not use oil-based sweeping compounds to clean and prepare the concrete subfloor. Use of such sweeping compounds leaves an oil film on the surface of the concrete that will interfere with the USG Durock™ Quik-Ramp floor patch's bond development. Use vacuum, compressed air or a dry broom to remove the dust and debris and prepare the subfloor for USG Durock™ Quik-Ramp floor patch application.

NOTES/LIMITATIONS CONT.

14. Do not use adhesive-removing chemicals or solvents to eliminate contaminants from the concrete subfloor. Use of such chemicals can transport oil, grease and other contaminants further into the concrete pores. These chemicals can be released back to the surface at a later time to interfere with the floor-covering adhesives, thus compromising the bond performance with USG Durock™ Quik-Ramp floor patch. Mechanically removing the organic adhesives, asphalt, coal-tar-based adhesives and other oil-based contaminants is the sole recommended method of preparing the subfloor for application of USG Durock™ Quik-Ramp floor patch.
15. For applications over materials containing asbestos, contact USG. Do not mechanically remove organic adhesives, asphalt, coal-tar-based adhesives or other materials containing asbestos.
16. Do not overwater or overmix.
17. Do not add any chemical additives or polymers to USG Durock™ Quik-Ramp floor patch.
18. Do not use wet curing or curing compounds. Existing curing compounds on concrete surfaces must be removed. Shot blasting is the only recommended method of removal.
19. Do not mix with other cementitious products or self-leveling materials.
20. Structure shall be designed so deflection does not exceed L/240 from combined dead and live loads and L/360 from live loads. Certain floor coverings such as marble, limestone, travertine and wood may have more restrictive deflection limits. Consult the appropriate floor-covering manufacturer.
21. Existing gypsum underlayments must be solid with no cracks and dust free. Gypsum underlayment must be sealed with USG Durock™ Primer-Sealer or X2 Primer-Sealer. First test surface hardness by scratching existing underlayment with a coin. If surface can be gouged, do not use USG Durock™ Quik-Ramp floor patch and consult USG for alternative repair methods.

PRODUCT DATA

Mixing Ratio: 50 lb. bag USG Durock™ Quik-Ramp floor patch to 4.5–5.5 quarts (4.25–5.20 liters) of water (five parts USG Durock™ Quik-Ramp floor patch to one part water by weight)

Approximate Compressive Strength (aggregated) ASTM C109 (modified):
6,000 psi² at 28 days

Installed Weight: 2 lbs./sq. ft. at 1/4" thickness

Approximate Coverage:
110–115 sq. ft./bag at 1/16" thickness
55–57.5 sq. ft./bag at 1/8" thickness
27.5–28.75 sq. ft./bag at 1/4" thickness

Approximate Working Time ASTM C191 (modified): 15–25 minutes (70°F/50% RH)

Approximate Final Set ASTM C191 (modified): 25–35 minutes (depending on underlayment thickness and drying conditions)

Approximate Walkable (light foot traffic): 30 minutes (after skim coat set)

Thickness Range:

Concrete: Skim coat to 2" neat; 5" when extended

Wood: Skim coat to 1/4"; up to 3/4" in well defined areas

Adhesive Residues: Skim coat to 1/8" maximum

Nonporous Substrates: Skim coat to 2" neat; 5" when extended

Packaging: 50 lb. multiwall paper bags

Note:

1. ASTM C109 modified refers to air-drying as opposed to damp curing.

2. Physical characteristics published herein were achieved under controlled laboratory conditions. Actual field results may differ due to environmental conditions, inconsistent proportioning of field applied water and USG Durock™ Quik-Ramp floor patch, as well as differences in mixing/pumping equipment.

STORAGE

USG Durock™ Quik-Ramp floor patch should be stored in an enclosed shelter providing protection from damage and exposure from the elements. During winter, dry mix material should be stored in a heated room before application, as deeply cooled material may increase the risk that some additives may not dissolve during mixing. If temperature is too high, premature setting may occur. Protect unused material by removing air from bag and sealing tightly. Remove damaged or deteriorated materials from the job site. USG Durock™ Quik-Ramp floor patch has a shelf life of 12 months from the manufactured date.

CLEANUP

Clean tools with water immediately after use and before USG Durock™ Quik-Ramp floor patch dries.

SUBMITTAL APPROVALS

| | |
|-------------------|-------------|
| Job Name | |
| Contractor | Date |

PRODUCT INFORMATION

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

DANGER!

Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause cancer by inhalation of respirable crystalline silica. Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Use only in a well-ventilated area, wear a NIOSH/MSHA-approved respirator. Wear protective gloves/protective clothing/eye protection. If swallowed, inhaled, or skin irritation occurs get medical attention. If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Dispose of in accordance with local, state, and federal regulations.

For more information call Product Safety: 800 507-8899 or see the SDS at usg.com

KEEP OUT OF REACH OF CHILDREN

TRADEMARKS

The trademarks USG, DUROCK, RH-100, QUIK-RAMP, IT'S YOUR WORLD. BUILD IT., the USG logo, the design elements and colors, and related marks are trademarks of USG Corporation or its affiliates.

LEED is a registered trademark of the 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 SDS and literature before specification and installation.

800 USG.4YOU
800 (874-4968)
usg.com

Manufactured by or for
United States Gypsum Company
550 West Adams Street
Chicago, IL 60661

CB667/rev. 10-15
© 2015 USG Corporation and/or
its affiliates. All rights reserved.
Printed in U.S.A.

