



# USG DUROCK™ BRAND NE FLOOR PATCH

## Versatile, trowelable cementitious patching compound for skim coating and ramping

- For interior use over concrete and approved wood subfloors
- Polymer-modified—promotes early strength and workability
- No priming necessary for most applications
- Fast setting—floor coverings may be installed in as little as one hour
- Low energy required to mix and apply
- Featheredge to 2 in. (50.8 mm) thick
- GREENGUARD Gold Certification; qualifies as a low VOC emitting material (meets CA 01350)

## DESCRIPTION

USG Durock™ Brand NE Floor Patch is a polymer-modified, cement-based patching compound for interior use over concrete and approved wood subfloors. Ideal for renovation projects, this economical floor patch provides a smooth skim coat for accepting floor coverings. Additionally, this patch can be used for ramping to create smooth transitions in both new and renovation construction.

USG Durock™ NE Floor Patch is easy to mix, apply and is fast drying – floor coverings can be installed in as little as one hour.<sup>1</sup> In most applications, priming is not required.<sup>2</sup>

1. High humidity, thickness and/or low ambient or substrate temperatures will delay time to floor covering application.
2. Existing gypsum underlayment requires special consideration. See *Notes/Limitations #7*, pg. 3.

## 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™ NE Floor Patch to the host substrate.

## MIXING 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)

## RATIO

**For skim coating:** Mix 7-8 qt. US (6.6-7.6 L) clean water per 50-lb. (22.6 kg) bag. For smaller quantities, mix 3 parts powder to 1 part water by weight.

**For ramping:** Mix 5-6 qt. US (4.7-5.6 L) clean water per 50-lb (22.6 kg) bag. For smaller quantities, mix 5 parts powder to 1 part water by weight.

## INSTRUCTIONS

To mix USG Durock™ NE Floor Patch, first add the clean water to a mixing bucket, then add the floor patch. Mix with a paddle and drill. Mix for a maximum of two minutes with a trowel to achieve a smooth, lump-free consistency. Do not overwater.

Use USG Durock™ NE Floor Patch within 10-20 minutes after mixing. Remix (without adding water) as needed within this time frame. Dispose of any USG Durock™ NE Floor Patch once setting has occurred.

## APPLICATION

During application and until USG Durock™ NE Floor Patch is set (typically within 60–90 minutes, depending on floor patch thickness and drying conditions), 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™ NE Floor Patch product—either mixed or in powdered form—must be between 50 °F and 95 °F (10–35 °C) at the time of application and for 72 hours after installation of USG Durock™ NE Floor Patch. For temperatures above 95 °F (35 °C), consult USG.

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

USG Durock™ NE Floor Patch has a working time of approximately 10–20 minutes at 70 °F (21 °C)/50% RH (at higher temperatures the working time is shortened; at lower temperatures the working time is extended).

## CONCRETE SUBFLOORS

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 underlayment, remove weak or degraded concrete with hammer, chisel or mechanical preparation as required. It is not required to mechanically profile the concrete subfloor with methods such as shot blasting, scarifying or diamond grinding.

Concrete subfloors receiving cementitious floor patch must be cured properly (generally for a minimum of 28 days) prior to floor patch installation. When the MVER exceeds 5 lbs. (2.3 kg)/1,000 sq. ft. (92.9 m<sup>2</sup>)/24 hours or an RH greater than 80% per ASTM F2170, treat the concrete subfloor with an approved moisture vapor reducer. USG Durock™ NE Floor Patch is not a vapor or moisture barrier. Transmission of excessive water vapor or moisture from the concrete subfloor through the patch can interfere with floor coverings and/or floor-covering adhesives, thus compromising its performance. For on-grade concrete applications, use an approved moisture vapor reducer. A 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. (2.3 kg)/1,000 sq. ft. (92.9 m<sup>2</sup>)/24 hours or has an RH less than 80% per ASTM F2170. If the concrete subfloor has been treated with an approved moisture vapor reducer, it must be primed with USG Durock™ Brand Primer-Sealer prior to application of USG Durock™ NE 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™ NE Floor Patch. Consult with the engineer on the project or request the services of a professional structural engineer for all suspected structural cracks.

Repair all non-structural cracks in old and new concrete to minimize and control their ability to telegraph through the layer of USG Durock™ NE Floor Patch. First remove the weak concrete along the length of the cracks by chiseling or other suitable means. Next, remove accumulated dust and debris from the crack cavities using a HEPA filtration industrial vacuum or other suitable means. Various cracks present in the concrete subfloor including shrinkage cracks must be filled with a suitable commercially available crack-repair material designed for concrete flooring applications. To ensure superior resistance to crack growth, use injection crack-repair techniques per industry 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™ NE Floor Patch. Growth of existing cracks or formation of new cracks in the concrete subfloor can lead to cracks telegraphing through USG Durock™ NE Floor Patch. Respect existing expansion and control joints (see *Notes/Limitations* #9, pg. 3).

Priming is not required over concrete. USG Durock™ NE Floor Patch may be applied from featheredge to 2 in. (50.8 mm) thick over concrete subfloors.

## APPLICATION CONT.

### GYPSUM UNDERLAYMENTS

USG Durock™ NE Floor Patch can be used over gypsum underlayments. Existing gypsum underlayments must be solid with no cracks and be dust free. Underlayment must be sealed with USG Durock™ Brand Primer-Sealer. First test surface hardness by scratching existing underlayment with a coin. If surface can be gouged, do not use USG Durock™ NE Floor Patch and consult USG for alternative repair methods.

### WOOD SUBFLOORS

USG Durock™ NE 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.

Before application, subfloor must be properly prepared (see *Notes/Limitations* #20, pg. 4 for subfloor deflections) and loose boards secured with deck screws. Priming is not required over wood subfloors. USG Durock™ NE Floor Patch may be applied from featheredge to 2 in. (50.8 mm) thick over approved wood subfloors.

## FLOOR-COVERING INSTALLATION

USG Durock™ NE Floor Patch may be ready for floor covering in as little as 60 minutes after application (at 70 °F (21 °C)). Drying time is dependent on job site temperature and humidity conditions as well as application thickness. For example, high humidity and/or low substrate temperatures will extend dry times.

- Floor coverings such as ceramic tile, VCT, sheet vinyl and carpeting can be installed as soon as USG Durock™ NE Floor Patch can be worked on without damaging the surface.
- Nonbreathable floor coverings requiring special adhesives that are sensitive to moisture; high-performance adhesives such as urethanes or epoxies; and wood flooring 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™ NE Floor Patch.
- Protect the surface of USG Durock™ NE 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™ NE Floor Patch. Install floor covering with adhesive and perform field bond test approximately 72 hours after installation.
- Follow floor-covering manufacturers' recommendations for surface-sealing requirements. If the floor-covering or adhesive manufacturer requirements are more stringent, their requirements take precedence.

## NOTES/LIMITATIONS

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. Existing gypsum underlayments must be solid and dust free. Gypsum underlayment must be sealed with USG Durock™ Primer-Sealer or Fusion™ Primer. First test surface hardness by scratching existing underlayment with a coin. If surface can be gouged, please see *USG Rehabilitation Guidelines for Damaged Gypsum Underlayments* (CB822) at usg.com for alternative repair methods.
8. Do not apply directly to sound mat.
9. 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 the services of a professional structural engineer to provide such joints as part of the system in accordance with engineering requirements and industry standards.
10. 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™ NE 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™ NE Floor Patch. Growth of existing cracks or formation of new cracks in the concrete subfloor can lead to cracks telegraphing through the floor patch.

## NOTES/LIMITATIONS CONT.

11. When the MVER exceeds 5 lbs. (2.3 kg)/1,000 sq. ft. (92.9 m<sup>2</sup>)/24 hours or an RH greater than 80% per ASTM F2170, treat the concrete subfloor with an approved moisture vapor reducer. USG Durock™ NE Floor Patch is not a vapor or moisture barrier. Transmission of excessive water vapor or moisture from the concrete subfloor through the patch can interfere with floor coverings and/or floor-covering adhesives, thus compromising their performance. A 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. (2.3 kg)/1,000 sq. ft. (92.9 m<sup>2</sup>)/24 hours or has an RH less than 80% per ASTM F2170. If the concrete subfloor has been treated with an approved moisture vapor reducer, it must be primed with USG Durock™ Brand Primer-Sealer prior to application of the USG Durock™ NE Floor Patch.
12. Do not use acid etching as a method of cleaning and preparing the concrete subfloor. Profiling the concrete surface with USG Durock™ LSP™ Liquid Surface Profiler should be used in lieu of acid etching solutions.
13. Do not use sweeping compounds to clean and prepare the concrete subfloor. Use of such sweeping compounds leaves a film on the surface of the concrete that will interfere with the patch's bond development. Use a HEPA filtration industrial vacuum to remove the dust and debris and prepare the subfloor for USG Durock™ NE Floor Patch application.
14. The use of adhesive-removing chemicals or solvents to eliminate contaminants from the concrete subfloor can transport oil, grease and other contaminants further into the concrete pores. These chemicals can leech back to the surface over time thus compromising the bond performance of flooring adhesives to USG Durock™ NE Floor Patch. To remove contaminants from the concrete subfloor, use USG Durock™ LSP Liquid Surface Profiler to clean and prepare the surface. See *USG Durock™ Brand LSP™ Liquid Surface Profiler Submittal* (CB5246) at [usg.com](http://usg.com) for more information.
15. For application 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™ NE Floor Patch.
18. Do not use wet curing or curing compounds.
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. For wood subfloors, install only on tongue-and-groove edge plywood or OSB, or square-edge wood subfloor with back-bracing.

## PRODUCT DATA

**Mixing Ratio:**

**For skim coating:** Mix 7 - 8 qt. US (6.6 - 7.6 L) clean water per 50-lb. (22.6 kg) bag. For smaller quantities, mix 3 parts powder to 1 part water by weight.

**For ramping:** Mix 5 - 6 qt. US (4.7 - 5.6 L) clean water per 50-lb (22.6 kg) bag. For smaller quantities, mix 5 parts powder to 1 part water by weight.

**Approximate Coverage:** Approximately 56-78 sq. ft. (5.2-7.2 m<sup>2</sup>) per bag at 1/8 in. (3 mm) thickness

**Approximate Working Time:** 10-20 minutes at 70 °F (21 °C)/50% RH

**Application of Floor Covering:** In as little as 60 minutes or when USG Durock™ NE Floor Patch can be worked on without damaging the surface. Drying time is dependent on job site temperature and humidity conditions as well as application thickness.

**Thickness Range:** Featheredge to 2 in. (50.8 mm) thick

**Packaging:** 50 lb. (11.3 kg) multiwall paper bags

**Note:** Results for the properties published above were achieved under controlled laboratory conditions. Actual field results may differ due to environmental conditions, regional sand variations, inconsistent proportioning of field applied water and USG Durock™ NE Floor Patch, as well as differences in mixing/pumping equipment.

**STORAGE**

USG Durock™ NE Floor Patch should be stored in an enclosed shelter providing protection from damage and exposure from the elements and at temperatures of 50-90 °F (10-32 °C). 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™ NE Floor Patch has a shelf life of 12 months from the manufactured date.

**SUBMITTAL APPROVALS**

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

**PRODUCT INFORMATION**

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

**GREENGUARD INFORMATION**

GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit [ul.com/gg](http://ul.com/gg).

**EPD & HPD INFORMATION**

For sustainability transparency documents, visit [usg.ecomedes.com](http://usg.ecomedes.com)

**DANGER**

Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause respiratory irritation. 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](http://usg.com)

**KEEP OUT OF REACH OF CHILDREN.**

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**SAFETY FIRST!**

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



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