



USG DUROCK™ BRAND COVERPREP

MOISTURE VAPOR REDUCER

Universal low-prep moisture vapor barrier

- For use over concrete; chemically abated slabs, properly secured VCT and ceramic tiles; existing and cut-back adhesives
- Addresses MVER rates up to 14 lbs. per ASTM F1869, up to 25 lbs. with a two-coat application
- No mechanical preparation required for most applications
- Manages up to 14 pH

DESCRIPTION

USG Durock™ Brand CoverPrep Moisture Vapor Reducer is a low-prep, specially formulated 2-part water-based epoxy that creates a stable and protective barrier between problematic concrete substrate conditions and subsequent floor preparation systems including wear surface coatings and floor coverings. Renovation of a concrete substrate is simplified because USG Durock™ CoverPrep Moisture Vapor Reducer can cover chemically abated slabs, thin layers of non-water soluble adhesives and adhesive cutback, asphalt-based products, vinyl tiles, terrazzo and other well bonded solid surfaces to isolate a wet concrete substrate below.

USG Durock™ CoverPrep Moisture Vapor Reducer is also a low-prep option* when preparing freshly poured and existing concrete with moisture levels up to 99% RH, pH levels up to 14 and moisture vapor emission rates of up to 25 lbs./1000 sq. ft./24 hours.

Note *No mechanical preparation required for most applications.

EXTENDED WARRANTY

An extended warranty may apply when using USG Durock™ CoverPrep Moisture Vapor Reducer in a system application. Please contact USG for further details.

SUBFLOOR PREPARATION

CONCRETE SLABS

All subfloors must be structurally sound, solid and secure. 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.

Certain contaminants such as aggregates causing alkali-silica reaction (ASR), deleterious salts, expansive material constituents or reaction products, bond breakers such as curing compounds, silicate-based surface hardeners, densifiers, etc., may inhibit USG Durock™ CoverPrep's bonding capabilities. Concrete subfloors with unknown histories (i.e. old concrete, floor-covering failures, etc.) must be cored and analyzed to decipher failure mode(s) and underlying deleterious material constituents and reactions. If USG Durock™ CoverPrep Moisture Vapor Reducer is being applied over a cure & seal product, an adhesion test should be performed to ensure compatibility. For dirty or contaminated slabs, mechanical preparation may be required in order to remove bond breakers. The responsibility for conducting this testing lies with the building owner or its authorized representatives.

USG Durock™ CoverPrep Moisture Vapor Reducer is designed to go over clean and smooth concrete without the need to shot blast or scarify surface. Concrete subfloors must be clean and free of dirt, tar, wax, oil, grease, latex compounds, sealers, curing compounds, release agents, 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™ CoverPrep Moisture Vapor Reducer to the concrete subfloor. Seal off floor drains to prevent drain pipes from clogging.

The concrete subfloor must have a minimum tensile strength of 175 psi (1.2 MPa) when tested per the ASTM C1583 standard. Vacuum substrate with a HEPA filtration industrial vacuum to remove the dust and debris and prepare the subfloor for USG Durock™ CoverPrep Moisture Vapor Reducer application.

SUBFLOOR PREPARATION CONT.

Cracks in the existing concrete subfloor must be inspected by a professional structural engineer to determine if the crack is static or dynamic. In the case of the latter, remediation of the crack must be addressed. Repair all existing cracks in old and new concrete to minimize and control their ability to telegraph through the layer of USG Durock™ CoverPrep Moisture Vapor Reducer and the floor underlayment. 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 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™ CoverPrep Moisture Vapor Reducer and the subsequent floor preparation product(s). Growth of existing cracks or formation of new cracks in the concrete subfloor can lead to cracks telegraphing through USG Durock™ CoverPrep Moisture Vapor Reducer and the subsequent floor preparation product(s).

Prior to application of USG Durock™ CoverPrep Moisture Vapor Reducer, test for concrete moisture vapor emission rate using a calcium chloride test kit. (ASTM F1869). USG Durock™ CoverPrep Moisture Vapor Reducer can manage moisture vapor emission rates of up to 14 lbs. (6.3 kg)/1000 sq. ft. (92.9 m²)/24 hours with a single coat application. For below-grade applications, if you are unable to perform a calcium chloride test per ASTM F1869 or, for MVERs up to 25 lbs. (11.3 kg)/1000 sq. ft. (92.9 m²)/24 hours, apply a second coat of USG Durock™ CoverPrep Moisture Vapor Reducer.

GREEN CONCRETE

USG Durock™ CoverPrep Moisture Vapor Reducer can be applied directly to green concrete 5 days after placement.

**EXISTING FLOOR COVERINGS/ADHESIVE RESIDUES/
CHEMICALLY CONTAMINATED SLABS**

Chemically treated concrete or slabs soiled with oil or grease must first be prepared using a high quality surface cleaner/degreaser prior to the application of USG Durock™ CoverPrep Moisture Vapor Reducer. After cleaning, pre-treatment of superficial concrete cracks with USG Durock™ CoverPrep Moisture Vapor Reducer is recommended to reduce the potential for chemical leeching from the cracks.

USG Durock™ CoverPrep Moisture Vapor Reducer can be applied to well-bonded existing vinyl tiles, ceramic tiles, non-water soluble adhesives and cutback adhesive, cementitious roofing materials, asphalt and bitumen roofing materials. Any existing flooring or adhesive residues that are loose, flaking, blistered, or not properly bonded to the original slab, should be scraped, sanded, and/or removed. Any existing floor covering surfaces or residues should be completely free of any material that would prevent proper adhesion of USG Durock™ CoverPrep Moisture Vapor Reducer. Use a high quality industrial degreasing product when necessary. Glossy surfaces should be deglossed or abraded by buffing with 60-80 grit sandpaper or similar abrasive means.

Note — When applying USG Durock™ CoverPrep Moisture Vapor Reducer over existing floor covering or floor covering adhesive residues, good construction practices MUST be applied. USG Durock™ CoverPrep Moisture Vapor Reducer will bond to many types of flooring products, but those products MUST be well bonded to the substrate in order to achieve optimal performance. See *USG Durock™ Brand Self-Leveling Underlayments Asbestos Guidelines* (CB5378) on usgperformanceflooring.com.

During the USG Durock™ CoverPrep Moisture Vapor Reducer installation process, the work area must be protected and the temperature maintained at a 45 °F (7 °C) minimum for 24 hours before, during and after installation. Adequate ventilation must be provided to ensure proper curing of USG Durock™ CoverPrep Moisture Vapor Reducer. Substrate temperature at the time of installation must not be less than 45 °F (7 °C). Ambient temperature must be maintained at a range of 45-95 °F (7-35 °C). Cure times will be extended at lower temperatures and shortened at higher temperatures.

**MIXING
EQUIPMENT**

- Chemical safety glasses or splash-proof goggles
- Protective gloves
- NIOSH/OSHA-approved organic vapor respirator
- Electric drill (300–400 rpm)
- Mixing paddle type 3 or 12—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). See page 3 for paddle illustrations.

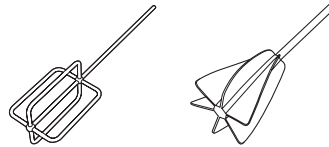
MIXING CONT.
EQUIPMENT CONT.

- Nonshedding 3/8 in. (10 mm) nap phenolic core roller cover
- Paint tray
- Wet mil. gauge
- Non-metallic cleated shoes
- Long sleeved shirts and trousers
- Emergency showers and eye wash stations should be readily accessible

INSTRUCTIONS

Read USG Durock™ CoverPrep Moisture Vapor Reducer SDSs for both part A and part B prior to mixing and application.

USG Durock™ CoverPrep Moisture Vapor Reducer is packaged in a two-part, premeasured kit. First, pre-mix the B-side to integrate fillers that have settled to the bottom of the pail by using an electric drill (300-400 rpm) with one of the two types of mixing blades shown below. Use the proper mixing blade at high speed to loosen and integrate fillers off the bottom of the B-side pail; once loosened, the fillers will integrate quickly. Once the solids are loosened from the bottom, continue mixing until uniform.



MIXING BLADE OPTIONS

Once B-side fillers are mixed, slowly add part A to the part B, and continue mixing with the same drill and paddle while moving the paddle around the container's sides and bottom. Pour the entire contents of part A into the part B container – **do not mix partial amounts of the components and do not mix by hand.** Sufficient mixing is typically achieved in 1-2 minutes. Ensure mixture is uniform in appearance.

USG Durock™ CoverPrep Moisture Vapor Reducer has a working time of approximately 50 minutes at 73 °F (23 °C). At higher temperatures the working time is shortened; at lower temperatures the working time is extended.

APPLICATION

USG Durock™ CoverPrep Moisture Vapor Reducer can be applied directly to new concrete 5 days after placement. If USG Durock™ CoverPrep Moisture Vapor Reducer is being applied over a cure & seal product, an adhesion test should be performed to ensure compatibility.

For both existing and green concrete applications, the work area must be protected from the elements in adequately ventilated areas (i.e., slightly opened windows and doors in dry weather only) to ensure worker safety and promote proper curing. Applicators should wear appropriate personal protective equipment and spiked shoes; in enclosed areas, an appropriate cartridge-type respirator must be used. Substrate temperature must be at least 5 °F (2.8 °C) above the measured dew point temperature prior to application. Minimum ambient and substrate temperature during application and curing of material is 45 °F (8 °C); maximum is 95 °F (35 °C).

Immediately after mixing, pour the contents out of the pail into a paint tray and apply the material with an 18 in. (457 mm) wide, 3/8 in. (10 mm) nap, or a 9 in. (229 mm) wide, 3/8 in. (10 mm) nap, non-shedding phenolic core roller for best results. USG Durock™ CoverPrep Moisture Vapor Reducer must be applied in a consistent film, at a rate of 150-175 sq. ft./gallon (10-11 mil. wet film thickness). When applying the material at the correct rate, the installer will feel a pull or drag on the roller. Mark application grids equal to application rate to ensure proper coverage while working material into all voids, pinholes and joints. **Note** – Concrete porosity and concrete surface profile will affect the actual coverage rate.

Material should not sit in pail for more than 10 minutes without remixing for 20 seconds. Allow to cure to tack free surface, typically 4-6 hours at 73 °F (23 °C), or until USG Durock™ CoverPrep Moisture Vapor Reducer can be walked on without marring or disturbing the surface. After this time, installation of the floor preparation products or floor coverings can begin. **Note** –High air relative humidity and/or low subfloor temperature may extend the curing time.

A second coat can typically be applied within 4-6 hours of installation of the first coat. You may install a second application within 24 hours as long as the surface has been cleaned and is free of any contaminants that would inhibit the bond. The second coat must be applied in a consistent film thickness of 10-11 mils. The rate should not exceed 175 sq. ft./gallon.

APPLICATION CONT.**SAND BROADCASTING**

If a sand broadcast texture is desired, a second coat of USG Durock™ CoverPrep Moisture Vapor Reducer is required. The first coat of USG Durock™ CoverPrep Moisture Vapor Reducer must be applied in a consistent film, at a rate of 150-175 sq. ft./gallon (10-11 mil. wet film thickness). After the first coat is cured, typically 4-6 hours at 73 °F (23 °C) the second coat can be applied evenly at a rate not to exceed 175 sq. ft./gallon (9-10 mil. wet film thickness). Immediately broadcast approved sand over the second coat to full rejection. Allow product to fully cure for approximately 4-6 hours. Remove loose sand and treat bare spots by reapplying the epoxy and sand to full rejection. Allow patched areas to fully cure and remove excess sand prior to application of the underlayment.

FLOOR PATCH/UNDERLAYMENT APPLICATION

Before USG Durock™ Self-Leveling Underlayments, USG Durock™ Tuf-Skim™ Floor Patch or USG Levelrock® Floor Underlayments are installed, prime the surface with undiluted USG Durock™ Primer-Sealer at a rate of 450 sq. ft./gal. and let dry. USG Durock™ Brand calcium-aluminate Floor Patches can be applied directly to a cured application of USG Durock™ CoverPrep™ Moisture Vapor Reducer.

ADHESIVE APPLICATION

USG Durock™ Genius™ Flooring Adhesive can be used to bond floor coverings directly to substrates treated with USG Durock™ CoverPrep™ Moisture Vapor Reducer. See the *USG Durock™ Brand Genius™ Flooring Adhesive Submittal* (CB5247) at usgperformanceflooring.com for application instructions.

NOTES/LIMITATIONS

1. For below-grade applications, or in areas subject to hydrostatic pressure, contact USG.
2. Do not use in exterior applications.
3. Do not use in buildings without permanent windows, doors and roofs.
4. Do not use as a wear surface.
5. Do not use over concrete that has been treated with reactive silicate curing compounds, densifiers, or slabs that may have silicate contamination.
6. Do not apply USG Durock™ CoverPrep Moisture Vapor Reducer over a concrete subfloor that has standing or glistening water.
7. Do not install over dimensionally unstable, improperly prepared, weak subfloors. Tensile strength of concrete over which USG Durock™ CoverPrep Moisture Vapor Reducer is installed must be a minimum of 175 psi (1.2 MPa) as tested per the ASTM C1583 standard.
8. 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™ CoverPrep Moisture Vapor Reducer. Note that repair of existing cracks in the concrete subfloor only subdues but does not completely prevent their ability to telegraph through USG Durock™ CoverPrep Moisture Vapor Reducer and the floor underlayment. Growth of existing cracks or formation of new cracks in the concrete subfloor can lead to cracks telegraphing through USG Durock™ CoverPrep Moisture Vapor Reducer and subsequent floor preparation systems.
9. Do not use acid etching as a method of cleaning and preparing the concrete subfloor.
10. Do not use 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™ CoverPrep Moisture Vapor Reducer's bond development. Use a HEPA filtration industrial vacuum to remove the dust and debris and prepare the subfloor for USG Durock™ CoverPrep Moisture Vapor Reducer application.
11. Do not mechanically remove organic adhesives, asphalt, coal-tar-based adhesives or other materials containing asbestos. Contact USG for application of USG Durock™ CoverPrep Moisture Vapor Reducer over asbestos tiles. See *USG Durock™ Brand Self-Leveling Underlayments Asbestos Guidelines* (CB5378) on usgperformanceflooring.com.

PRODUCT DATA

MVER (ASTM F1869): 14 lbs. (6.3 kg)/1,000 sq. ft. (92.9 m²)/24 hours with one coat
(for MVERs ranging from 14 – 25 lbs. (6.3 – 11.3 kg)/1000 sq. ft./24 hours, two coats are required)

RH (ASTM F2170): ≤ 99%

Alkalinity: Manages up to 14 pH

VOC Content: Part A: < 30 g/L; Part B: < 30 g/L

Approximate Coverage: 600 sq. ft. (55.7 m²)

Approximate Coverage (Sand Broadcast):

Apply first coat at a rate of 600 sq. ft. (55.7 m²)/4-gallon (15 L) kit at 10 – 11 mil.

Apply second coat at a rate of 700 sq. ft. (65 m²)/4-gallon (15 L) kit at 9 – 10 mil.

Approximate Working Time: 50 minutes at 73 °F (23 °C)

Approximate Curing Time: 4–6 hours; recoat window – 4–24 hours at 73 °F (23 °C)

Kit Packaging: 5 gal. (US) (18.9 L) pail containing 3 gal. (US) (11.4 L) Part B
and 1 gal. (US) (3.8 L) Part A

Note

1. Cure times will be extended at lower temperatures and shortened at higher temperatures.

STORAGE

USG Durock™ CoverPrep Moisture Vapor Reducer should be stored in an enclosed shelter providing protection from damage and exposure from the elements. USG Durock™ CoverPrep Moisture Vapor Reducer should be stored in unopened containers, between 50-90 °F (10-32 °C). Keep USG Durock™ CoverPrep Moisture Vapor Reducer from freezing and extreme heat. Dispose of any waste material according to federal/state/local regulations. USG Durock™ CoverPrep Moisture Vapor Reducer has a shelf life of 24 months from the date of manufacture.

CLEANUP

When wet, USG Durock™ CoverPrep Moisture Vapor Reducer can be cleaned off of tools with a scouring pad and warm soapy water. If product has set, then mechanical cleaning with a suitable paint stripper following the manufacturer's instructions is required.

SUBMITTAL APPROVALS

Job Name	
Contractor	Date

PRODUCT INFORMATION

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

PART A

WARNING

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects. Wash thoroughly after handling. Avoid breathing mist or vapor. Use only in a well-ventilated area. Avoid release to the environment. Wear appropriate chemical resistant gloves and clothing. Use of butyl rubber gloves and apron is recommended. In case of inadequate ventilation wear respiratory protection. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction. Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Dispose of contents/containers to an approved waste disposal plant. For more information call Product Safety: 1-800-507-8899 or see the SDS at usg.com.

KEEP OUT OF REACH OF CHILDREN.

PART B

DANGER

Causes skin irritation. Causes serious eye damage. Wash thoroughly after handling. Avoid breathing mist or vapor. Use only in a well-ventilated area. Avoid release to the environment. Wear appropriate chemical resistant gloves and clothing. In case of inadequate ventilation wear respiratory protection. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction. Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Dispose of contents/containers to an approved waste disposal plant. For more information call Product Safety: 1-800-507-8899 or see the SDS at 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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