



USG DUROCK™ BRAND FUSION™ PRIMER

Two-component waterborne epoxy

- Ideal for surface consolidation of compromised gypsum underlayments
- May be used as a curing compound over green concrete
- May be used as a urine resistant primer
- Superior penetration and bond to gypsum underlayments and green concrete
- Low VOC and low odor
- Fast cure time

DESCRIPTION

USG Durock™ Brand Fusion™ Primer is a one-coat, two-component, waterborne epoxy that has been specially formulated for interior applications, including as a consolidation primer for compromised gypsum underlayments and a curing compound for green concrete.

As a consolidation primer for compromised gypsum underlayments, USG Durock™ Fusion Primer reduces surface dust and chalkiness, and increases surface hardness and internal strength of the gypsum matrix to an acceptable level which then allows the application of USG Durock™ trowelable or USG Durock™ or USG Levelrock® gypsum-based underlayments to repair the compromised gypsum underlayment surface.

When used as a curing compound, USG Durock™ Fusion Primer seals the surface of the slab and can improve the physical properties of the concrete by allowing proper hydration. By applying within 8 hours of pouring the concrete, it eliminates the need for mechanical preparation. USG Durock™ Fusion Primer meets ASTM C309 requirements for use as a concrete curing compound.

SUBFLOOR PREPARATION

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. Also ensure the subfloor temperature is between 41-85 °F (5-29 °C) and that the subfloor temperature is 5 °F (2.8 °C) above measured dew point prior to application.

Gypsum underlayment floors must be clean and free of dirt, tar, wax, oil, grease, latex compounds, sealers, curing compounds, release agents, asphalt, adhesives, paint, chemicals, loose gypsum, joint compounds from drywall installation or any other contaminant that might prevent proper bonding of USG Durock™ Fusion Primer to the subfloor. Radiant heat systems should be shut off and cooled down during application and drying of the USG Durock™ Fusion Primer.

If the surface is soft, chalky and/or a low-strength gypsum underlayment, sweep the old gypsum surface using a stiff bristle broom while wearing proper dust protection. This will help to remove the old gypsum "scale" from the surface. It is highly recommended that a HEPA vacuum be used after the broom cleaning to remove as much dust as possible.

Note that the gypsum underlayment must be at least ¾ in. (19 mm) over the subfloor when used in a UL listed assembly. To determine the gypsum underlayment depth, core the floor by drilling through the gypsum until the wood subfloor is detected. After cleaning and coring the surface, any areas that are less than ¾ in. (19 mm) deep will require a gypsum repair product that is Classified and specified by UL. All USG Levelrock and USG Durock™ gypsum-based products are UL Classified. **Important** – using a non-UL Classified product will violate building code requirements for fire resistance.

For more information about the use of USG Durock™ Fusion Primer as a consolidation primer for compromised gypsum underlayments, please see *USG Rehabilitation Guidelines for Damaged Gypsum Underlayments* (CB822).

MIXING EQUIPMENT

- Safety glasses
- Protective gloves
- NIOSH-approved respirator
- Electric drill (300–400 rpm)
- Jiffy®-type mixer
- 5 gallon pails/mixing drums
- Nonshedding ¼ in. (6 mm) or ⅜ in. (19 mm) nap nylon core roller cover
- Non-metallic cleated shoes

MIXING & APPLICATION

Subfloor temperature must be at least 5 °F (2.8 °C) above measured dew point temperatures prior to application. Minimum ambient and subfloor temperature during application and curing of material is 41 °F (5 °C); maximum is 90 °F (32 °C). Frequent monitoring of ambient and subfloor temperature should always be done when applying epoxy primers. Note that low temperatures will slow down the cure, and high temperatures will accelerate it.

AS A CONSOLIDATION PRIMER

Condition material to 65-85 °F (18-30 °C) before using. Mix USG Durock™ Fusion Primer components A & B by adding the .28 gallon (1.0 L) of Part A to the .35 gallon (1.3 L) of Part B in the short filled Part B pail. Mix thoroughly with a low speed (300 - 500 rpm) drill with a Jiffy-type paddle for 3 minutes. This mixture will appear as a light olive green color when completely mixed.

Next, fill a clean 5 gallon bucket with 4.4 gallons (16.6 L) of potable water. Slowly add the A/B mixture to the water while mixing. Mix for an additional 2 minutes until all components are fully dispersed. Fully dispersed material will appear as light yellow to white in color.

Note—The order that the USG Durock™ Fusion Primer components are mixed is critical to the performance of this product. Water must be added per instructions above. Failure to mix properly may result in an incomplete cure, despite a dry appearance.

For application of USG Durock™ Fusion Primer over compromised or old gypsum underlayments, spray USG Durock™ Fusion Primer using a Hudson®-type sprayer or roll at a rate of no more than 200 sq. ft./gal. (4.9 m²/L) and then back roll with a ¼ in. (6 mm) nap roller to eliminate any puddles. Allow for sufficient wetting of the slab and ensure that the recommended coverage rate is honored. Minimize the overlap from batch to batch or bead-to-bead applications while achieving complete surface coverage. There should be no loose dust on the surface if properly applied. Pot life is up to two hours based on temperature/humidity. Working time is shortened by higher temperatures.

The primed surface is ready for the application of a USG pourable or trowelable repair product as soon as the primer turns clear. Do not apply multiple coats of USG Durock™ Fusion Primer.

Allow USG Durock™ Fusion Primer to cure for a minimum of 4 hours, but not more than 8 hours, before installation of the recommended USG Durock™ Self-Leveling Underlayment. Underlayment application after 8 hours will require an application of USG Durock™ Primer-Sealer prior to pouring.

AS A CURING COMPOUND

Condition material to 65-85 °F (18-30 °C) before using. Mix USG Durock™ Fusion Primer components A & B by adding the .28 gallon (1.0 L) of Part A to the .35 gallon (1.3 L) of Part B in the short filled Part B pail. Mix thoroughly with a low speed (300 - 500 rpm) drill with a Jiffy-type paddle for 3 minutes. This mixture will appear as a light olive green color when completely mixed.

Next, fill a clean 5 gallon bucket with 0.7 gallons (2.6 L) of potable water. Slowly add the A/B mixture to the water while mixing. Mix for an additional 2 minutes until all components are fully dispersed. Fully dispersed material will appear as light yellow to white in color.

Note—The order that the USG Durock™ Fusion Primer components are mixed is critical to the performance of this product. Water must be added per instructions above. Failure to mix properly may result in an incomplete cure, despite a dry appearance.

When using as a curing compound, USG Durock™ Fusion Primer should be applied within 8 hours of the pour to eliminate the need for shotblasting. USG Durock™ Fusion Primer must be roller applied to ensure uniform coverage. Apply mixed USG Durock™ Fusion Primer at rate of 150-250 sq. ft./gal (3.6-6.1 m²/L). Do not allow USG Durock™ Fusion Primer to puddle. Back roll any areas that have puddled. Minimize overlap from batch to batch while achieving complete slab coverage, as these areas of overlap may not bond.

Note—Instructions are based upon standard concrete mix designs formulated for 3500 - 4500 psi compressive strength. For all non-standard mix designs, please contact your USG Sales Representative.

MIXING & APPLICATION CONT.
AS A URINE RESISTANT PRIMER

Condition material to 65-85 °F (18-30 °C) before using. Mix USG Durock™ Fusion Primer components A & B by adding the .28 gallon (1.0 L) of Part A to the .35 gallon (1.3 L) of Part B in the short filled Part B pail. Mix thoroughly with a low speed (300 - 500 rpm) drill with a Jiffy-type paddle for 3 minutes. This mixture will appear as a light olive green color when completely mixed.

Next, fill a clean 2 gallon bucket with .75 gallons (2.8 L) of potable water. Slowly add the A/B mixture to the water while mixing. Mix for an additional 2 minutes until all components are fully dispersed. Fully dispersed material will appear as light yellow to white in color.

Note—The order that the USG Durock™ Fusion Primer components are mixed is critical to the performance of this product. Water must be added per instructions above. Failure to mix properly may result in an incomplete cure, despite a dry appearance.

For application of USG Durock™ Fusion Primer as a urine-resistant primer over a freshly installed, dry USG Levelrock® or USG Durock™ gypsum based underlayment, spray USG Durock™ Fusion Primer using a Hudson-type sprayer at a rate of no more than 350 sq. ft./gal. (8.6 m²/L) and then back roll with a ¼ in. (6.4 mm) nap roller to eliminate any puddles. Allow for sufficient wetting of the slab and ensure that the recommended coverage rate is honored. Minimize the overlap from batch to batch or bead-to-bead applications while achieving complete surface coverage. Pot life is up to two hours based on temperature/humidity. Working time is shortened by higher temperatures.

Floor coverings can be installed 14 hours after USG Durock™ Fusion Primer application. Do not apply multiple coats of USG Durock™ Fusion Primer.

AS A SURFACE TREATMENT

Condition material to 65-85 °F (18-30 °C) before using. Mix USG Durock™ Fusion Primer components A & B by adding the .28 gallon (1.0 L) of Part A to the .35 gallon (1.3 L) of Part B in the short filled Part B pail. Mix thoroughly with a low speed (300 - 500 rpm) drill with a Jiffy-type paddle for 3 minutes. This mixture will appear as a light olive green color when completely mixed.

Next, fill a clean 5 gallon bucket with 4.4 gallons (16.6 L) of potable water. Slowly add the A/B mixture to the water while mixing. Mix for an additional 2 minutes until all components are fully dispersed. Fully dispersed material will appear as light yellow to white in color.

Note—The order that the USG Durock™ Fusion Primer components are mixed is critical to the performance of this product. Water must be added per instructions above. Failure to mix properly may result in an incomplete cure, despite a dry appearance.

When used as a surface treatment, USG Durock™ Fusion Primer can be applied to the surface of freshly poured USG gypsum-based underlayments two hours after set. The primer application will not add substantially to the drying time of the underlayment. Shot blasting for this application is not required nor recommended when USG Durock™ Fusion Primer is being applied to the surface of USG gypsum-based underlayments.

USG Durock™ Fusion Primer must be roller applied to ensure uniform coverage. Apply mixed USG Durock™ Fusion Primer at rate of 350-400 sq. ft./gal (8.6-9.8 m²/L). Do not allow USG Durock™ Fusion Primer to puddle. Back roll any areas that have puddled. Only one coat can be applied. There should be no loose dust on the surface if properly applied.

In all cases, a field bond test must be conducted with the proposed adhesive to be used for the job. The field bond test should be done on a mock-up and ideally, the check for bond should be done by the floor-covering professional after 72 hours. Once, he/she deems the bond satisfactory, priming of the entire floor can proceed.

NOTES/LIMITATIONS

1. Do not use in exterior applications.
2. Do not thin USG Durock™ Fusion Primer.
3. A certain degree of porosity of the slab surface is necessary for USG Durock™ Fusion Primer to function as designed.
4. Precautions should be taken to prevent vapors and/or odors from entering the building/structure, including but not limited to turning off and sealing air intake vents and through wall air conditioners, and other means of vapor/odor ingress during application and cure.
5. When applied as a surface treatment, USG Durock™ Fusion Primer is not UV stable and must be covered with a floor covering.

PRODUCT DATA

PRODUCT INFORMATION

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

Part A: WARNING

Causes skin irritation and serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects. Avoid contact with eyes or skin, ingestion, and inhalation of mist or vapor. Use only in a well-ventilated area; wear a NIOSH-approved respirator if necessary. Wear protective gloves/protective clothing/face protection/eye protection. Avoid release to the environment. If on skin: Wash with plenty of soap and water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing. If skin irritation or rash occurs, or if eye irritation persists: Get medical attention. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Dispose of contents/containers to an approved waste disposal plant. Keep containers closed when not in use. 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 serious eye damage. Harmful if swallowed. Wear protective gloves/protective clothing/face protection/eye protection. Wash skin thoroughly after handling. Do not eat, drink, or smoke when using this product. Use only in a well-ventilated area; wear a NIOSH-approved respirator if necessary. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing. Immediately call a poison center or doctor. If swallowed: Rinse mouth; call a poison center or doctor if you feel unwell. Dispose of contents/container to an approved waste disposal plant. Keep containers closed when not in use. For more information call Product Safety: 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.

Pot Life: Up to 2 hours based on temperature/humidity

Approximate coverage as a surface consolidation primer: Up to 200 sq. ft. (18.6 m²) per gallon¹

Approximate coverage as a concrete curing compound: Up to 250 sq. ft. (23.2 m²) per gallon¹

Approximate coverage as a urine resistant primer: Up to 350 sq. ft. (32.5 m²) per gallon¹

Approximate coverage as a surface treatment of USG gypsum-based underlayments: Up to 400 sq. ft. (37.2 m²) per gallon¹

VOC Content: <5 g/L

Cure Time: 3-4 hrs. at 77 °F (25 °C) and 50% relative humidity

Flash Point: >200 °F (93.3 °C)

Packaging: USG Durock™ Fusion Primer is packaged in a two-part kit consisting of one .28 gallon (1.0 L) container (Part A) and one .35 gallon (1.3 L) container (Part B).

1. Porous and rough subfloors will decrease coverage.

CLEANUP

Remove wet primer with methyl ethyl ketone (MEK), xylene or oxygenated solvents. Once cured, primer can only be removed by mechanical means. Strictly follow solvent manufacturer's warnings and instructions for use.

STORAGE

Protect USG Durock™ Fusion Primer from freezing. If material becomes frozen, dispose of material properly, following all local, state and federal regulations. Store dry between 40-90 °F (4-32 °C). USG Durock™ Fusion Primer has a shelf life of 2 years from the manufactured date in original unopened container under proper storage conditions.

EXTENDED WARRANTY

An extended warranty may apply when using USG Durock™ Fusion Primer in a system application. Please contact USG for further details.

SUBMITTAL APPROVALS

Job Name	
Contractor	Date

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