

Primer-Sealer Installation Guide



**USG DUROCK™ BRAND
PRIMER-SEALER**

Fast-drying **USG Durock™ Brand Primer-Sealer** is a high-solids, low VOC, acrylic primer used for priming substrates prior to the application of USG Durock™ Brand Self-Leveling Underlayments. It provides exceptional bond both as a primer or as a sealer over gypsum self-leveling underlayments. The versatility of USG Durock™ Primer-Sealer allows for it to be used diluted or undiluted, depending on the application, and in most cases with a single coat.

The purpose of this installation guide is to provide you with general steps and procedures on how to properly install USG Durock™ Primer-Sealer in several different application types. Please contact your local USG representative prior to using in an application not listed.

For further product information, see *CB519 USG Durock™ Primer-Sealer Submittal* at usg.com.

MIXING

TOOLS

- HUDSON®-type sprayer
- Paint roller
- Push broom
- Electric drill
- Jiffy®-type mixer
- Mixing container

INSTRUCTIONS

Use USG Durock™ Primer-Sealer for priming the concrete or wood subfloor prior to application of any USG Durock™ Self-Leveling Underlayment. For applications over compromised gypsum underlayments, see *USG Rehabilitation Guidelines for Damaged Gypsum Underlayments* (CB822) prior to installation. Proper use of USG Durock™ Primer-Sealer effectively seals the subfloor, enhances bond and prevents formation of pinholes, domes and craters in USG Durock™ Self-Leveling Underlayments due to the upward migration of air bubbles from the subfloor.

Floors to be primed must be dry, structurally sound and clean. Remove any dirt, tar, wax, oil, grease, latex compounds, sealers, curing compounds, release agents, asphalt, water-soluble adhesives, paint, chemicals, loose topping, joint compounds from drywall installation or any other contaminant that might interfere with development of good bond.

For primer application, the temperature of USG Durock™ Primer-Sealer, the subfloor and the room must be maintained between 50 °F and 95 °F (10 °C and 35 °C) for a period of 48 hours before, during and after application. Shake well and pour the contents into a clean bucket. If dilution is required, add the appropriate amount of water based on the information provided in the *Application* sections. Mix the diluted solution with a paddle mixer at slow speed for approximately one minute. Next, apply primer to the subfloor at the coverage rate specified for the corresponding type of substrate surface. Work primer into the surface using a push broom. Apply evenly and do not puddle. The actual coverage of the primer will depend upon the nature and porosity of the subfloor.

For applications over non-absorbent subfloors, diluting the USG Durock™ Primer-Sealer is not required. Dry time is estimated to be three hours at 70°F and 65% relative humidity. Allow primer to dry at least three hours, but not more than 18 hours, before pouring USG Durock™ Self-Leveling Underlayment. High air relative humidity and/or low subfloor temperature may necessitate a longer drying time.

When applying USG Durock™ Primer-Sealer over absorbent subfloors, allow the diluted primer to dry for a minimum of two hours, but not more than 18 hours, prior to the application of the USG Durock™ Self-Leveling Underlayment. High absorption concrete may require additional coats of primer. High air relative humidity and/or low subfloor temperature may necessitate a longer drying time.

When using the diluted primer as a surface sealer over USG Durock™ Multi-Use Self-Leveling Underlayments, allow a minimum of three hours for drying prior to the application of floor covering adhesives. High air relative humidity and/or low subfloor temperature may necessitate a longer drying time.

Contact USG when considering USG Durock™ Primer-Sealer for multiple-lift applications of USG Durock™ Self-Leveling Underlayments and prior to using the product as a surface sealer over any USG Durock™ underlayments not mentioned in this document.

APPLICATION

AS A PRIMER OVER NON-ABSORBENT SUBFLOORS OR USG DUROCK™ BRAND RH-100™ MOISTURE VAPOR REDUCER

NOTE If priming over USG Durock™ RH-100™ Moisture Vapor Reducer, allow it to have cured at least four hours before applying USG Durock™ Primer-Sealer.

1. Job site and USG Durock™ Primer-Sealer must be maintained at a minimum of 50 °F (10 °C) for 48 hours before, during and after job completion.
2. Subfloor must be free of dirt, wax, polish, joint compound, paint, excess dust or any other contaminant before application of primer. The use of oil-based sweeping compounds is not recommended.
3. Apply a single coat of USG Durock™ Primer-Sealer (no dilution) with a paint roller or push broom at an application rate of 400-450 sq. ft./gal. (9.8-11.0 m²/L) prior to installation of USG Durock™ Self-Leveling Underlayments.
4. Allow primer to dry at least three hours, but not more than 18 hours, before installation of USG Durock™ Self-Leveling Underlayment. If 18 hours has passed and the underlayment has not been poured, recoat the subfloor with a partially diluted mixture (1:1) of one part USG Durock™ Primer-Sealer to one part potable water at a rate of 400-450 sq. ft./gal. (9.8-11.0 m²/L) with roller or push broom and allow three hours for drying prior to underlayment application.

AS A PRIMER FOR ABSORBENT CONCRETE SUBFLOORS

NOTE New concrete must be cured for a minimum of 28 days. When the Moisture Vapor Emission Rate (MVER) exceeds 5 lbs./1,000 sq. ft. (2.3 kg/92.9 m²) per 24 hours per ASTM F1869 or a relative humidity (RH) greater than 80% per ASTM F2170, then the concrete subfloor must be treated with USG Durock™ RH-100™ Moisture Vapor Reducer.

1. Job site and USG Durock™ Primer-Sealer must be maintained at a minimum of 50 °F (10 °C) for 48 hours before, during and after job completion.
2. Subfloor must be free of dirt, wax, polish, joint compound, paint, excess dust or any other contaminant before application of primer. The use of oil-based sweeping compounds is not recommended.
3. Application over absorbent concrete will require a two-coat application. Apply first coat using fully diluted mixture (1:4), one part USG Durock™ Primer-Sealer to four parts potable water, at a rate of 200 sq. ft./gal. with a paint roller or push broom. Allow primer to dry for one hour before applying second coat.
4. Apply second coat using a partially diluted mixture (1:1), one part USG Durock™ Primer-Sealer to 1 part potable water, at a rate of 300 sq. ft./gal. with a paint roller or push broom.
5. Allow second coat to dry at least two hours, but not more than 18 hours, before pouring USG Durock™ Self-Leveling Underlayment. If 18 hours has passed and the underlayment has not been poured, recoat the subfloor with a partially diluted mixture (1:1) of one part USG Durock™ Primer-Sealer to one part potable water at a rate of 400-450 sq. ft./gal. (9.8-11.0 m²/L) and allow three hours for drying prior to underlayment application.

APPLICATION CONT.

AS A PRIMER FOR WOOD SUBFLOORS AND USG STRUCTURAL PANELS

NOTE Plywood or OSB subfloor must meet APA Type 1 or 2 standards and should not contain more than 12% moisture. Weak, rotted or damaged wood should be replaced prior to priming.

1. Job site and USG Durock™ Primer-Sealer must be maintained at a minimum of 50 °F (10 °C) for 48 hours before, during and after the job completion.
2. Subfloor must be free of dirt, wax, polish, joint compound, paint, excess dust or any other contaminant before application of primer. The use of oil-based sweeping compounds is not recommended.
3. Apply using a partially diluted mixture (1:2) of one part USG Durock™ Primer-Sealer to two parts potable water with a paint roller or push broom at a rate of 300-350 sq. ft./gal. (7.4-8.6 m²/L).
4. Allow primer to dry at least two hours, but not more than 18 hours, before pouring USG Durock™ Self-Leveling Underlayment. If 18 hours has passed and the underlayment has not been poured, recoat the subfloor with a partially diluted mixture (1:1) of one part USG Durock™ Primer-Sealer to one part potable water at a rate of 400-450 sq. ft./gal. (9.8-11.0 m²/L) and allow three hours for drying prior to underlayment application.

APPLICATION CONT.

AS A SEALER FOR USG DUROCK™ BRAND MULTI-USE SELF-LEVELING UNDERLAYMENTS

1. Seal USG Durock™ Multi-Use Self-Leveling Underlayments prior to application of water-based adhesives, floor patches or mortars.
2. Jobsite, USG Durock™ Primer-Sealer and underlayment must be maintained at a minimum of 50°F (10°C) for 48 hours before, during and after job completion. Radiant heat systems should be shut down during application and drying of primer.
3. Underlayment must be free of dirt, wax, polish, paint, excess dust or other contaminants before application of USG Durock™ Primer-Sealer. The use of oil-based sweeping compounds is not recommended.
4. Underlayment must be dry prior to application of USG Durock™ Primer-Sealer. Good air movement is critical to drying of underlayment. Check for dryness by taping down a sheet of plastic approximately 18 in. x 18 in. (457 mm x 457 mm). Tape must seal all sides of plastic. After 16 hours, a lack of condensation or no noticeable darkening of USG Durock™ underlayment indicates that the floor is dry. Be sure to check for dryness in corners where airflow may be restricted. See ASTM D4263 for complete instructions.
5. Apply fully diluted primer (1:4) of one part USG Durock™ Primer-Sealer to four parts potable water at a rate of 400-450 sq. ft./gal. (9.8-11.0 m²/L). The USG Durock™ Primer-Sealer dilution can be sprayed or applied with a paint roller to the underlayment surface. Do not allow USG Durock™ Primer-Sealer to puddle. Do not overseal USG Durock™ Multi-Use Self-Leveling Underlayments.
6. Allow USG Durock™ Primer-Sealer to dry for three hours before installation of floor-covering products. Dry time will vary with drying conditions.
7. Consult your USG representative when applying uniform materials.
8. Priming the underlayment may not be required when using high-solids urethane adhesives for wood floor attachment. However, ensuring that the underlayment is completely dry prior to wood floor attachment is especially critical.
9. Recommendations of the floor-covering and floor-covering adhesive manufacturers supercede these instructions.

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 on excessively dusty floors.
5. Do not use on water-soluble adhesive residues.
6. Do not use as a primer under dispersion wood floor adhesives.
7. If high-solids adhesives are used, do not seal USG Durock™ Multi-Use Self-Leveling Underlayments with USG Durock™ Primer-Sealer. Follow floor-covering manufacturers' recommendations for surface-sealing requirements.

STORAGE

Do not store USG Durock™ Primer-Sealer in freezing conditions. If material becomes frozen, allow to thaw to room temperature. If material is smooth and uniform, it can be used. If material is lumpy or has a "cottage cheese" appearance, dispose of material properly, following all local, state and federal regulations. During summer months, do not store sealer above 120 °F (49 °C). USG Durock™ Primer-Sealer has a shelf life of 12 months from the manufacture date.

CLEANUP

Clean tools with water before USG Durock™ Primer-Sealer dries. Use mineral spirits to clean dried sealer. Carefully read manufacturer's warnings and instructions before using mineral spirits.

CONTACT INFORMATION

United States Gypsum Company
550 West Adams Street
Chicago, IL 60661

TECHNICAL SERVICE
800 USG.4YOU

WEBSITE
usg.com

CUSTOMER SERVICE
800 621.9523

PRODUCT INFORMATION

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

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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.

