

# **USG DUROCK** BRAND QUIK-TOP WHITE FR

### SFI F-I EVFI ING UNDERI AYMENT

#### Premium fiber-reinforced (FR) poured underlayment product with self-drying technology

- UL Classified and specified for use in 130+ assemblies
- No mechanical preparation required for most applications
- Provides smooth surface with improved impact resistance
- Enhances crack reduction and reduces further propagation
- Cost-effective reinforcement solution with improved load distribution
- Apply floor covering in as little as 15 hours after underlayment application
- Suitable for most floor coverings
- Compressive strength up to 10,000 psi (68.9 MPa) with self-sealing technology
- · Can be stained, polished or used by itself as a finished floor with an appropriate coating system
- GREENGUARD Gold Certification; qualifies as a low VOC emitting material (meets CA 01350)

#### **DESCRIPTION**

USG Durock<sup>™</sup> Brand Quik-Top<sup>™</sup> White FR Self-Leveling Underlayment is a pre-sanded cementitious underlayment designed to provide a smooth, hard underlayment surface over a variety of subfloor types. Reinforced with fibers that improve impact strength, USG Durock<sup>™</sup> Quik-Top White FR Self-Leveling Underlayment may be applied at featheredge to 3 in. (76 mm) thick.

An innovative USG technology minimizes downtime with quick set times and high production rates. This allows for trade traffic within hours of installation and installation of floor coverings in as little as 15 hours after the underlayment is poured for most applications.

USG Durock™ Quik-Top White FR Self-Leveling Underlayment offers self-sealing technology which may eliminate the need for priming the underlayment surface prior to the application of floor coverings.¹

USG Durock™ Quik-Top White FR Self-Leveling Underlayment is suitable for a variety of floor coverings. It exceeds commercial resilient floor-covering requirements for underlayments with compressive strengths of up to 10,000 psi (68.9 MPa). The exceptional surface hardness of USG Durock™ Quik-Top White FR Self-Leveling Underlayment resists indentation. Higher compressive strengths minimize floor damage from other trades and minimize the need for repair patching.

#### Note

 Floor manufacturers' recommendations may supercede those presented here—especially with respect to the requirement for sealing underlayment. In all cases, a field bond test using the floor-covering adhesive is recommended.

#### INTENDED FOR

- Light-commercial, commercial, residential, hotel/motel and rehab construction
- Concrete slabs, pre-stressed concrete, concrete planks, concrete repair/leveling, existing gypsum, radiant heat systems, USG Structural Panels, and OSB and plywood
- UL fire-rated assemblies with UL Designation Type HSLRK
- Use with a variety of floor coverings, including vinyl, carpet, hardwood, and natural and manmade stone
- · Use as a wear surface with an appropriate coating



#### 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. Mechanical preparation is not required for most applications.

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 underlayment. Clean all surface debris and dust by sweeping or vacuuming with a HEPA filtration industrial vacuum. Seal off floor drains before starting to pour underlayment to prevent drain pipes from clogging.

Fill deep areas and holes prior to final application. Contact USG for further information.

To minimize the effect of expansion, wrap USG Levelrock® Perimeter Isolation Strip 2.5 (1/4 in. (6 mm) thick) around all door jambs, columns and pipes. For outside corners, the strip should extend a minimum of 24 in. (610 mm) from the corner on both sides. For more information on perimeter isolation strip installation, see *USG Levelrock® Brand Perimeter Isolation Strip Submittal* (IG1874).

When used as a wear surface, use a suitable protective coating intended to prevent dirt, grime or other contaminants from staining the surface.

USG Durock™ self-leveling underlayments are not structural and will not resist movement in buildings. Structural movement resulting in stress to the USG Durock™ self-leveling underlayment will cause cracking to occur.

#### CONCRETE SUBFLOORS

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 over the entire pour area. 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 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.

When the MVER exceeds 5 lbs. (2.3 kg)/1,000 sq. ft. (92.9 m²)/24 hours or an RH greater than 80% per ASTM F2170, treat the concrete subfloor with an approved moisture vapor reducer. USG Durock™ Quik-Top White FR Self-Leveling Underlayment is not a vapor or moisture barrier. Transmission of excessive water vapor or moisture from the concrete subfloor through the floor underlayment can interfere with floor coverings and/or floor-covering adhesives, thus compromising their 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 m²)/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™ Primer-Sealer prior to application of the USG Durock™ Quik-Top White FR Self-Leveling Underlayment.

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-Top White FR Self-Leveling Underlayment. 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™ Quik-Top White FR Self-Leveling Underlayment. 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

#### SUBFLOOR PREPARATION CONT.

CONCRETE SUBFLOORS CONT.

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 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<sup>™</sup> Quik-Top White FR Self-Leveling Underlayment. Growth of existing cracks or formation of new cracks in the concrete subfloor can lead to cracks telegraphing through USG Durock<sup>™</sup> Quik-Top White FR Self-Leveling Underlayment. Respect existing expansion and control joints (see *Notes/Limitations* #8, pg. 6).

USG Durock™ Quik-Top White FR Self-Leveling Underlayment 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 (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. Subfloor must be properly prepared and primed prior to underlayment application.

WOOD SUBFLOORS

USG Durock™ Quik-Top White FR Self-Leveling Underlayment can be applied without wire lath over engineer-approved, APA-rated exterior glue plywood or oriented strand board (OSB) (i.e., APA-Rated Exterior or Exposure 1 panels) wood subfloors. Joist spacing up to 24 in. (610 mm) o.c. without wire lath requires a minimum 3/4 in. (19 mm) depth. Wire lath is required for depths between 1/2 in. (13 mm) and 3/4 in. (19 mm). Subfloor must be properly prepared and primed with USG Durock™ Brand Primer-Sealer. See *Notes/Limitations* #20, pg. 7 for subfloor deflections.

**GYPSUM UNDERLAYMENTS** 

Existing compromised gypsum underlayments must be solid. Loose, debonded gypsum underlayment must be completely removed until a sound bonding surface remains. Using a stiff bristle broom, sweep the old gypsum surface while wearing proper dust protection. This will help to remove the old gypsum "scale" from the surface. It is highly recommended that a HEPA filtration industrial vacuum be used after sweeping to remove as much dust as possible. Next, prime the surface with either USG Durock™ Primer-Sealer or Fusion™ Primer per the application instructions. For more information about the use of USG Durock™ Quik-Top White FR Self-Leveling Underlayment as a repair treatment for compromised gypsum underlayments, please see *USG Rehabilitation Guidelines for Damaged Gypsum Underlayments* (CB822).

STRUCTURAL CONCRETE PANELS

USG Durock™ Quik-Top White FR Self-Leveling Underlayment can be applied over USG Structural Panel Concrete Subfloors. For joist spacing up to 24 in. (610 mm) o.c., a minimum ½ in. (13 mm) depth is required. Subfloor must be properly prepared and primed with USG Durock™ Brand Primer-Sealer at a (1:1) ratio. For more information, see *USG Structural Panel Concrete Subfloor Submittal* (SCP3) at usg.com. See *Notes/Limitations* #20, pg. 7 for subfloor deflections.

RADIANT HEAT

For radiant heat applications, USG Durock™ Quik-Top White FR Self-Leveling Underlayment should be applied at a minimum thickness of 3/4 in. (19 mm) over the top of the electrical cables or hydronic tubes. Hydronic tubes are typically 3/4 in. (19 mm) thick (o.d.), resulting in a total USG Durock™ Quik Top White FR Self-Leveling Underlayment thickness of 1-1/2 in. (38 mm) (as measured from the subfloor to the top of the USG Durock™ Quik-Top White FR Self-Leveling Underlayment); electrical cable systems are typically 1/8 in. (3 mm) to 1/4 in. (6 mm) thick, resulting in a total underlayment thickness of 7/8 in. (22 mm) to 1 in. (25 mm) (as measured from the subfloor to the top of the USG Durock™ Quik-Top White FR Self-Leveling underlayment). At 1-1/2 in. (38 mm) thickness, the dry time for USG Durock™ Quik-Top White FR Self-Leveling Underlayment will be 14-17 days depending on environmental conditions. After 48 hours, the radiant heat system may be turned on at low temperature to help accelerate the drying process. However, good ventilation remains critical to speed the drying process.

EXISTING FLOOR COVERINGS

For the application of USG Durock™ Quik-Top White FR Self-Leveling Underlayment over existing floor coverings on concrete subfloors such as ceramic tile, vinyl composition tile (VCT), cement terrazzo and thin cutback adhesive, the surface needs to be well bonded, sound and clean.

If there is a concern or a potential for Asbestos Containing Materials (ACM), please reference CB5378 *Guidelines for Covering Asbestos Containing Materials* at usg.com or contact USG for further information.

Tiles that exhibit a bubbled surface or that are debonding from the substrate are not suitable surfaces for receiving pre-sanded floor underlayments. These floor-covering surfaces need to be removed and the substrate inspected for potential water damage. If water damage is detected, the source of the moisture needs to be identified and addressed. These areas should be checked for MVER using the ASTM F1869 test method or for RH using the ASTM F2170 test method (see *Concrete Subfloors*, pg. 2). Depending on the MVER ratings, the subfloor may need to be treated with USG Durock™ RH-100 Moisture Vapor Reducer.

#### **PRIMING**

Use the appropriate USG Durock™ Brand primer for preparing the subfloor prior to application of USG Durock™ Quik-Top White FR Self-Leveling Underlayment (see specific subfloor sections, pgs. 2-3). Proper use of USG Durock™ primers enhance the bond of the underlayment and effectively seals the subfloor and prevents formation of pinholes, domes and craters in USG Durock™ Quik-Top White FR Self-Leveling Underlayment due to the upward migration of air bubbles from the subfloor. Refer to submittal sheets USG Durock™ Brand Primer-Sealer (CB519) and USG Durock™ Brand Fusion™ Primer (CB836) at usg.com for installation instructions and application rates.

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 the USG Durock™ primer, subfloor and room must be maintained between 50-95 °F (10-35 °C) for a period of 48 hours before and after application.

#### MIXING TOOLS

- Mixing drum (15 gallons)
- · Gauge rake
- Smoother/spreader
- Nonmetallic cleated shoes
- · Measuring bucket
- Mixing drill type 2 through 7—as outlined in the Technical Guidelines prepared by the International Concrete Repair Institute, Pictorial Atlas of Concrete Repair 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 Equipment (Guideline No. 320.5R-2014)
- 1 in. x 2 in. (25 mm x 51 mm) brass or plastic cylinder
- 12 in. x 12 in. x 1/4 in. (305 mm x 305 mm x 6 mm) Plexiglas® sheet
- Minimum 2 in. (51 mm) putty/drywall taping knife
- · Ruler or tape measure

#### BARREL MIXING

When opening bags use engineering controls, including local exhaust, to reduce exposure to dust. Wear NIOSH-recommended respirator if needed. It is important that the mixing water for the total number of bags to be mixed is in the barrel prior to adding the dry material.

Determine the number of bags needed. Use 4.5-5.0 quarts (4.3-4.7 liters) of cool, clean potable water for each 50 lb. (22.7 kg) bag. Add appropriate amount of water to mixing barrel.

Next, slowly add one bag to the barrel while mixing. Mix for 30 seconds, making sure that all material is wetted out thoroughly. Slowly add the second and any additional bags to the mixing barrel while continuing to mix. Make sure the barrel sides are thoroughly scraped free of dry powder and that there is no unmixed material on the bottom of the barrel. Mix for an additional 90 seconds and ensure the material is uniform and lump free.

Perform a slump test on the material before application. See *Test Procedures* for instructions.

Do not add additional water until the two-minute mixing cycle has been completed. Do not overwater the material. If additional water is required, add no more than 0.5 quarts (0.47 liters) per bag and mix for 30 seconds or until mix is uniform. Do not overmix (more than three minutes), as this may induce air into the material.

The presence of bleed water on the surface and/or material segregation (settling of sand) indicates overwatering. Adjust the amount of water added to the mix to prevent bleed water and material segregation.

CONTINUOUS MIXER AND PUMP

Contact USG for information.

#### **TEST PROCEDURES**

SLUMP TEST

Set Plexiglas sheet on a level, stable surface, away from foot traffic. Ensure that the 1 in. x 2 in. (25 mm x 51 mm) cylinder is clean and dry. Place the cylinder in the middle of the Plexiglas sheet. Pour the USG Durock™ Quik-Top White FR Self-Leveling Underlayment slurry into the cylinder, slightly overfilling it. Screed off the excess material from the top of the poured cylinder, away from the Plexiglas sheet. Lift the cylinder up smoothly to form the patty. Do not shake any excess slurry from the cylinder. Wait one minute and measure the patty in two directions 90° apart and calculate the average of the two measurements +/- 1/8 in. (3 mm). Ensure that the average patty diameter is within the 7 - 7-1/2 in. (178-191 mm) range for USG Durock™ Quik-Top White FR Self-Leveling Underlayment.

#### APPLICATION

Prior to installation, any radiant heat systems should be turned off. During application and until USG Durock™ Quik-Top White FR Self-Leveling Underlayment is firmly set (typically the first two hours immediately following the pour), close all doors, windows and other openings in the building and turn off HVAC systems to prevent air drafts. Thereafter, the HVAC system can resume, as well as the use of doors, windows and other openings. Light foot traffic can also occur after this time. High ambient humidity and deeper thicknesses will delay the drying process. Protect floors from heavy trade traffic loads (i.e., loaded drywall carts, heavy tool cabinets, etc.) with plywood. Protect installation areas from direct sunlight exposure for at least 24 hours.

USG Durock™ Quik-Top White FR Self-Leveling Underlayment—either mixed or in powdered form—subfloor and room temperature 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™ Quik-Top White FR Self-Leveling Underlayment. If available water is not cool, chill water to 70 °F (21 °C).

When uncertain or unknown construction conditions are present on the job site, it is recommended to pour a small test area before conducting full installation. The test area must also include finish flooring to establish suitability of the complete system for intended use.

USG Durock™ Quik-Top White FR Self-Leveling Underlayment has a flow time of approximately 25 minutes at 70 °F (21 °C). At higher temperatures the flow time is shortened; at lower temperatures the flow time is extended. Work as a team to obtain a satisfactory installation. Ensure continuous flow of slurry and promptly spread the USG Durock™ Quik-Top White FR Self-Leveling Underlayment to desired thickness and finish using a gauge rake and a smoother. Perform these operations promptly to avoid trapping air bubbles, prevent formation of cold joints and achieve a satisfactory finish surface.

Apply USG Durock™ Quik-Top White FR Self-Leveling Underlayment in an even ribbon along the short dimension of the room or area to be poured. Maintain a continuous wet edge. If pouring USG Durock™ Quik-Top White FR Self-Leveling Underlayment against an edge that has been allowed to set, the edge of the previous pour should be treated with USG Durock™ Primer-Sealer.

DEEP FILL APPLICATION

Contact USG for information.

#### WEAR SURFACE APPLICATION

USG Durock™ Quik-Top White FR Self-Leveling Underlayment can be integrally colored or stained using a tested stain and either polished or sealed with a protective coating system. Staining can typically start 12 hours after installation of underlayment, speeding production scheduling. USG Durock™ Quik-Top White FR Self-Leveling Underlayment can also be polished or used by itself as a finished floor with an appropriate clear coating system.

- Coating systems must be tested for adhesion to USG Durock™ Quik-Top White FR Self-Leveling Underlayment. The bond test and performance of coatings are the responsibility of the coating manufacturer. Contact USG for further information regarding decorative coating options.
- USG recommends saw cutting 1/4 of the thickness of the recently poured USG Durock™
  underlayment at known stress points such as over beams, from column to column and where
  framing members change direction. Although saw cuts are intended to direct the movement
  from the stress points to occur at the saw cut, additional cracking may occur as a result of
  structural movement. Cracking is common and should be expected when installing nonstructural toppings.

#### FLOOR-COVERING INSTALLATION

 USG Durock™ Quik-Top White FR Self-Leveling Underlayment can be walked on two hours after installation.

## FLOOR-COVERING INSTALLATION CONT.

- Floor coverings can typically be installed after 15 hours when USG Durock™ Quik-Top White FR Self-Leveling Underlayment is applied at a 1 in. (25 mm) thickness or less. Drying time will vary depending on underlayment thickness and ambient climate conditions.
- Check with floor-covering and adhesive manufacturers for installation guidelines and suitability of their manufactured products over USG Durock™ Quik-Top White FR Self-Leveling Underlayment.
- Perform field bond test to determine adhesive/flooring performance over USG Durock™
   Quik-Top White FR Self-Leveling Underlayment. 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.

For further details on installation requirements, specifications and the most up-to-date product information, please see usg.com.

#### **NOTES/LIMITATIONS**

- 1. Do not use in exterior applications.
- 2. USG Durock™ Quik-Top White FR Self-Leveling Underlayment can be used as a wear surface with a tested decorative, protective coating system. Coating systems must be tested for adhesion to USG Durock™ Quik-Top White FR Self-Leveling Underlayment. The bond test and performance of coatings are the responsibility of the coating manufacturer. Contact USG for further information regarding decorative coating options.
- **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. Contact USG for use over sound mats.
- 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 the underlayment. 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-Top White FR Self-Leveling Underlayment. Growth of existing cracks or formation of new cracks in the concrete subfloor can lead to cracks telegraphing through the poured underlayment.
- 10. When the MVER exceeds 5 lbs. (2.3 kg)/1,000 sq. ft. (92.9 m²)/24 hours or an RH greater than 80% per ASTM F2170, treat the concrete subfloor with an approved moisture vapor reducer. USG Durock™ Quik-Top White FR Self-Leveling Underlayment is not a vapor or moisture barrier. Transmission of excessive water vapor or moisture from the concrete subfloor through the USG Durock™ Quik-Top White FR Self-Leveling Underlayment can interfere with floor coverings and/or floor-covering adhesives, thus compromising their performance. 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 m²)/24 hours or has an RH less than 80% per ASTM F2170.
- 11. Do not use acid etching as a method of cleaning and preparing the concrete subfloor.
- 12. 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 underlayment's bond development. Use a HEPA filtration industrial vacuum to remove the dust and debris and prepare the subfloor for USG Durock™ Quik-Top White FR Self-Leveling Underlayment application.
- 13. 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-Top White FR Self-Leveling Underlayment. 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-Top White FR Self-Leveling Underlayment.

#### NOTES/LIMITATIONS CONT.

- 14. Contact USG for applications of USG Durock™ gypsum-based cement self-leveling underlayments over asbestos tiles. Do not mechanically remove organic adhesives, asphalt, coal-tar-based adhesives or other materials containing asbestos.
- 15. Do not overwater or over mix.
- 16. Do not add any chemical additives or polymers to USG Durock™ Quik-Top White FR Self-Leveling Underlayment.
- 17. Do not use wet curing or curing compounds.
- **18.** Do not mix with other cementitious products or self-leveling materials.
- 19. Do not apply USG Durock™ Quik-Top Self-Leveling Underlayments over wood subfloor without metal lath at less than 3/4 in. thickness. Differential or excessive movement of the wood subfloor may lead to development of cracks in USG Durock™ Quik-Top White FR Self-Leveling Underlayment at the wood subfloor joints and adjacent areas.
- 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 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) for alternative repair methods.
- **22.** For thicknesses greater than 1 in. (25 mm), contact USG for special application instructions.
- 23. Adhere to the Radiant Panel Association (RPA) Guidelines for Hydronic Radiant Floor Heating regarding temperature and fluid temperatures. Fluid temperatures of radiant systems shall not exceed 140 °F (60 °C) at the exit of the heating device. To limit risk, floor temperatures shall not exceed 100 °F (38 °C) in general and shall be limited to 85 °F (29 °C) in areas of direct contact by building occupants. To minimize any potential of shocking the USG Durock™ Quik-Top Self-Leveling Underlayment, the radiant heat system should be ramped up slowly over several days until the underlayment is fully dry. Startup of radiant systems shall be in accordance with manufacturers' and RPA-recommended startup procedures.

#### PRODUCT DATA

USG Durock™ Quik-Top White FR Self-Leveling Underlayment is sanded at the factory. Job site addition of sand is not recommended and will void the warranty. USG Durock™ Quik-Top White FR Self-Leveling Underlayment is mixed with water to yield a self-leveling slurry.

Approximate Compressive Strength ASTM C109 (modified)¹: 10,000 psi² (68.9 MPa)

**Approximate Dry Density:** 124–130 lbs./cu. ft.<sup>2</sup> (1986-2082 kg/m<sup>3</sup>)

**Mixing Ratio:** 4.5-5.0 quarts (4.3-4.7 liters) of water per 50 lb. (22.7 kg) bag **Approximate Coverage:** 21 sq. ft. (1.9 m²) per bag at 1/4 in. (6 mm) thickness

Approximate Flow Time: 25 minutes

Approximate Final Set ASTM C191: 60-90 minutes<sup>2</sup>

Approximate Light Foot Traffic: 3-4 hours

**Approximate Time to Flooring:** 15 hours (24 hours for wood)

Approximate Flexural Strength ASTM C348: minimum 1,000 psi<sup>2</sup> (6.9 MPa)

Thickness Range: Concrete: Featheredge to 3 in. (76 mm)

Wood<sup>3</sup>: 1/2 in. (13 mm) - 3 in. (76 mm)

Structual Concrete Panels: 1/2 in. (13 mm) – 3 in. (76 mm)

Surface pH Range ASTM F710: 11

Packaging: 50 lb. (22.7 kg) multiwall paper bags

Shelf Life: 12 months from manufactured date when in original unopened packaging

#### Notes:

- 1. ASTM C109 modified refers to air drying as opposed to damp curing.
- Results 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-Top White FR Self-Leveling
  Underlayment, as well as differences in mixing/pumping equipment.
- 3. Wire lath is required for depths between 1/2 in. (13 mm) and 3/4 in. (19 mm).

#### **UL DESIGNATION TYPE HSLRK**

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.

**EPD INFORMATION** 

For Environmental Product Declarations, visit usg.ecomedes.com

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

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NOTICE

We shall not be liable for consequential, incidental or special damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to the replacement of defective goods or a refund of the purchase price, at USG's option, and does not include costs of labor, floor-covering materials, or any other costs associated with material replacement. 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. For all applicable terms and conditions, please refer to USG Durock" Brand Floor Preparation Products Two-Year Limited Warranty (CBT471) located at usa. Com

SAFETY FIRST!

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



G230, G516, G524, G535, G551\*, G553\*, G556, G559, G561, G562, G564\*, G566, G587, G588, G591, G592, H502, J917, J919, J920, J924, J927, J931, J957, J958, J991, J994, L006, L201, L206, L208, L209, L210, L211, L212, L501, L502, L503, L504, L505, L506, L507, L508, L509, L510, L511, L512, L513, L514, L515, L516, L517, L518, L519, L520, L521, L522, L523, L524, L525, L526, L527, L528, L529, L530, L533, L534, L535, L536, L537, L538, L539, L540, L541, L542, L543, L545, L546, L547, L549, L550, L551, L552, L556, L557, L558, L559, L560, L562, L563, L564, L565, L568, L569, L570, L573, L574, L577, L579, L581, L583, L585, L587, L588, L589, L590, L592, L593, M500, M501, M502, M503, M504, M505, M506, M508, M510, M511, M513, M515, M517\*, M521\*, M522\*, M525, M527, M530, M531, M532, M534, M535, M536, M538, M541.

For the most up-to-date UL Designation Type HSLRK, contact your USG representative.

**Note:** \*UL Design requires greater minimum pour depths and compressive strengths and/or additional requirements. See individual UL Designs for specifics.

#### **STORAGE**

USG Durock™ Quik-Top White FR Self-Leveling Underlayment 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. Remove damaged or deteriorated materials from the job site.

#### **EXTENDED WARRANTY**

An extended warranty may apply when using USG Durock™ Quik-Top White FR Self-Leveling Underlayment in a system application. Please contact USG for further details.

#### **SUBMITTAL APPROVALS**

Job Name	
Contractor	Date

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

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



