



1. Product Name

QuartzLock™ 2 Grout

2. Manufacturer

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3. Product Description

StarQuartz Industries, Inc., manufactures QuartzLock 2 Grout, a patented, semi-flexible, low shrinkage and highly crack resistant grout for the tile and stone industry. Premixed and ready to use, QuartzLock 2 utilizes environmentally friendly Urethane Grout Technology to create a product that is durable, self-sealing and UV stable, with chemical and stain resistance that meets or exceeds ANSI 118.3 standards for epoxy. Its color, derived from quartz aggregate rather than pigment, is guaranteed not to discolor or fade.

BASIC USE

QuartzLock 2 Grout is suited for interior and exterior commercial and residential applications, including:

- Ceramic, porcelain, mosaic, stone, marble, granite, slate, glass, quarry and travertine tile applications
- Horizontal and vertical surfaces, including floors, walls and countertops
- New grouting and regrouting
- High moisture areas
- Wet or dry areas

COMPOSITION & MATERIALS

QuartzLock 2 Grout is a UV resistant, air-cured, water-based urethane grout with a quartz aggregate and an additive for mold and mildew resistance.

SIZES

QuartzLock 2 Grout is offered in 9 lb (4 kg) and 18 lb (8 kg) buckets.

COLOR

A variety of solid and speckled colors are available:

- 120 - High White
- 145 - Bone
- 165 - Antique White
- 175 - Silk
- 210 - Cream
- 224 - Mushroom
- 230 - Almond
- 235 - Champagne
- 240 - Linen
- 245 - Wheat
- 250 - Caramel
- 255 - Solid Buff
- 260 - Haystack
- 265 - Birch
- 267 - Sandstone
- 270 - Milk Chocolate
- 272 - Dark Mocha
- 283 - Hemp
- 285 - Espresso
- 290 - Chestnut
- 320 - Silver Gray
- 340 - Solid Gray
- 370 - Raincloud Gray
- 375 - Natural
- 380 - Charcoal Gray
- 410 - Beach Sand
- 420 - Speckled Cement
- 430 - Camouflage
- 440 - Rust
- 460 - Speckled Brick
- 470 - Pepper
- 475 - Chocolate Black
- 480 - Ash
- 485 - Night Star
- 499 - Jet Black
- 530 - Clay
- 540 - Wasabi
- 550 - Olive
- 560 - Sea Blue
- 570 - Quarry Red

BENEFITS

- A unique property of urethane is its flexibility. This flexibility, along with its low shrinkage and excellent adhesion, allows QuartzLock 2 Grout to accommodate minor substrate movement and other environmental changes and leads to unmatched crack resistance.
- The urethane binder creates a self-sealing barrier that provides outstanding stain, mildew and chemical resistance.



- QuartzLock 2 Grout is premixed and ready to use, saving time and ensuring color consistency by eliminating field mixing.
- The combination of urethane and quartz provides rich grout color that is naturally resistant to UV and light exposure, eliminating fading and discoloration.
- Leftover grout can be resealed in the original container for later use, reducing waste and cost.
- QuartzLock 2 does not contain allergy-causing Bisphenol-A (BPA) found in epoxy grouts.

SHELF LIFE

QuartzLock 2 Grout is guaranteed to remain usable for a period of 2 years if stored unopened at temperatures higher than 40 degrees F (0 degrees C).

LIMITATIONS

- The minimum recommended grout joint width is 1/16" (1.6 mm)
- The standard maximum recommended grout joint width is 1/2" (12.7 mm); QuartzLock 2 Grout can, however, be used for larger joints caused by irregular tile and stone
- Do not use in areas subject to harsh or persistent chemical exposure or areas with very aggressive cleaning routines
- Do not use as a setting mortar
- Do not use as a replacement for a waterproof membrane
- Although QuartzLock 2 Grout resists stains from most household products, automotive chemicals and cleaners, persistent exposure to some materials can cause permanent staining or damage.

4. Technical Data

APPLICABLE STANDARDS

American National Standards Institute (ANSI) - ANSI A108/A118/A136 American National Standards for the Installation of Ceramic Tile

APPROVALS

QuartzLock 2 Grout meets or exceeds ANSI 118.3 and A118.6 standards for epoxy and cement grouts.

PHYSICAL/TECHNICAL PROPERTIES

See Table 1.

ENVIRONMENTAL CONSIDERATIONS

QuartzLock 2 Grout can contribute points toward LEED™ certification in the following key areas:

- Materials and Resources, MR credits 2.1 and 2.2. - Divert 50% and 75% from disposal
- Materials and Resources, MR credits 4.1 and 4.2 - Recycled content: 10 - 20%
- Materials and Resources, MR credits 5.1 and 5.2 - Extracted, Processed and Manufactured Regionally
- Indoor Environmental Quality, EQ credit 4.1 - Low-emitting Materials: Adhesives and sealants

5. Installation

PREPERATORY WORK

Deliver products in the manufacturer’s original, unopened, undamaged containers with identification labels intact. Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Read and understand Technical Data Sheet and Material Safety Data Sheet completely before beginning installation. Follow applicable ANSI, TCNA and NTCA installation standards. Always do a test area to ensure product satisfaction, including adhesion to substrate, and/or to become familiar with proper application techniques prior to use.

QuartzLock 2 Grout is a READY-TO-USE Urethane Grout and different installation techniques are required for successful product use. Please read the following instructions carefully.

TABLE 1 PHYSICAL/TECHNICAL PROPERTIES

Description	Typical Results
Water Solubility	100%
Boiling Point	212 degrees F (100 degrees C)
Water Cleanability	Pass
Initial Set	>2 hrs.
Service Strength	Pass
Vertical joint sag	Pass
ASTM C267 Chemical Resistance	Pass
Compressive Strength	>3,500 psi (>24 MPa)
Linear Shrinkage	0.06%
Water Absorption	<1%
Open Time	180 minutes
Colors	40 available

Chemical	Exposure
Acetic acid, 3%	Pass
Acetic acid, 10%	Pass
Ammonium chloride	Pass
Citric acid solution, 30 g/L	Pass
Citric acid solution, 100 g/L	Pass
Lactic Acid	Pass
Phosphoric acid, 3%	Pass
Phosphoric acid, 10%	Pass
Sulfamic acid, 3%	Pass
Sulfamic acid, 10%	Pass
Bleach	Pass
Hydrochloric acid, 3%	Pass
Hydrochloric acid, 10%	Pass
Potassium hydroxide, 30 g/L	Pass
Potassium hydroxide, 10 g/L	Pass

- DO NOT add any water, liquid, or other material to QuartzLock 2 Grout. This will cause grout failure and void all warranties.
- A milky, white liquid may be present on the surface of the grout when opened. This is from normal settling during shipment. The use of a margin trowel is recommended to bring grout into suspension. If a drill mixer is used, mix at low speed for no more than 30 seconds. Over-mixing with a drill mixer may introduce excessive air into the product and cause grout sagging on vertical applications and/or other performance issues. Continue to mix with a margin trowel throughout the grouting process.
- Ensure tile is firmly set and mortar is completely dry (always follow manufacturer’s instructions) before grouting.

- Remove all spacers, water, debris and adhesive from tile joints.
- For best results, surface of tile should be at room temperature (70°F to 75°F). Urethane materials are affected by temperature and humidity variations. Cool temperatures and/or high humidity will slow cure time.
- To facilitate cleaning, pre-seal all porous tile and natural stone before grouting.
- For glass tile, polished marble, stone and other soft surfaces, test grout on a small area to ensure compatibility.
- Make sure grout joints are clean, dry, and free from solvents and residue before grouting.

METHODS

Grouting

- Spread grout using a green, sharp-edged, firm rubber grout float. Work the grout diagonally across the joints, packing them full.
- Remove excess grout from the tile surface, pulling the edge of the float diagonally across the joint to prevent grout removal.

Initial Cleaning

For best results, remove grout haze AS YOU WORK, particularly in warm or dry climates. If working alone, only grout as far as you can reach (10-12 square foot area) before initial cleaning. If working as a team, one person should grout, with the other(s) cleaning immediately behind the first person.

- Rinse sponge in water and wring out completely. Since urethane grout requires very little water during cleanup, make sure that the sponge is wrung nearly dry. Wipe lightly, leaving sponge flat on the tile surface to prevent grout removal from joints. Excessive water during cleanup can dilute the urethane binder and cause curing issues that may lead to grout failure.
- Wipe up spilled water immediately. Do not allow water to sit on grout surface or in ungrouted joints.
- Change water mixture after each 100 square feet, for each new bucket of grout, or when dirty.
- Check work as you clean. Repair any low spots with additional grout. Unlike other grouts, DO NOT over wash.

Final Cleaning

- Allow cleaned areas to dry, and then inspect tile / stone surface. If a second cleaning is

necessary, wait 24 hours and spray a film remover (Aqua Mix® Heavy-Duty Tile and Grout Cleaner, Miracle Tile & Stone Cleaner, or DuPont™ StoneTech® Professional KlenzAll™ Cleaner) on a white scrubby Doodlebug™ cleaning pad, rubbing the tile lightly to remove any remaining urethane haze, then using a damp sponge and clean water, wipe the surface to remove the film remover (do not flood surface with cleaner). Finish by drying the tile surface with a clean towel or cloth. Contact StarQuartz if persistent haze exists.

Installation Requirements

- For use in joints 1/16" or greater. Ensure that joints are well packed. Smaller joints may require extra effort.
- To speed up installation, or for quarry and other porous tile and/or outdoor applications, pre-wet tile surface using clean water with a damp sponge prior to spreading grout, being careful not to leave standing water in the grout joints.
- Maintain temperature above 40°F (5°C) during installation and curing.

Curing

- Protect finished surface from light traffic for at least 24 hours at 70°F (21°C). Heavy foot traffic requires 72 hours at 70°F and 50% relative humidity.
- See Table 2 and Precautions below for further curing requirements.
- If needed, cover ONLY with kraft or breathable paper after initial 24-hour curing period.
- Full cure depends on grout depth. Normal cure of a ¼" grout joint with a 3/8" thick tile is 28 days.

Showers / Steam Showers / Wet Applications

- Use an approved waterproof sealer for mud bed applications and follow manufacturer's recommendations for sealer installation. For liquid-applied waterproofing materials, apply to within 1" of any drains to prevent weep hole blockage. The use of pre-sloped, waterproof trays (instead of mud beds) is highly recommended.

PRECAUTIONS

- Do not apply or clean up this product like traditional cement-based or epoxy grouts;

TABLE 2 INSTALLATION – CURING TIMES

Property	Time Required*
Working Time	3 hrs
Tack-Free Time	8 hrs
Ready for light foot traffic	24 hrs
Ready for heavy foot traffic	72 hrs
Stain resistant (food, cleaners, etc.)	3 days
Showers, Outdoors, Pools, Fountains and Wet Area Installations	7 days

*Results are typical, but reflect testing procedures employed. Actual results may vary due to particular environmental conditions and other factors (e.g. type of setting material used).

QuartzLock Grout is a new technology that requires a simpler and easier application and clean-up process.

- Follow all manufacturers' instructions for all other setting materials, waterproofing, anti-fracture membranes, etc. to be used on the job.
- Minimum recommended grout joint width is 1/16".
- Maximum recommended grout joint width is 1/2".
- Ensure that grout joints are fully packed, especially in tight and irregular joints. Take special care in all wet and outdoor applications.
- Do not use as a setting mortar.
- Not for use in heavy industrial applications (i.e. chemical plants), in areas subjected to harsh or persistent chemicals, or areas exposed to very aggressive cleaning routines such as steam or pressure washing.
- QuartzLock Grout is not a replacement for a waterproofing membrane. When a waterproofing system solution is required, please contact StarQuartz Technical Service.
- Protect grout from staining agents and chemicals during the cure process.
- Grouting when tile surface is above 90°F (32°C) is not recommended. Cool tile surface with damp sponge if tile surface is above 90°F (32°C). Be careful not to add excessive water during the tile cooling process.
- Do not use vinegar or acid solutions for clean-up; this could damage uncured grout.
- Always use protective clothing (gloves and eye protection) when working with grout.

- Prior to regrouting applications, remove 1/8" of old grout and any surface contaminants. Be sure to rinse any residual solvent/cleaner off grout joints, then allow joints to completely dry before re-grouting.
- Do not use for commercial or wet environment re-grouting installations, including showers, steam showers, and outdoor applications.
- Seal porous tile surfaces with a water-based sealer, including the sides of the stone, prior to grouting with QuartzLock Grout.
- Outdoor installations must be protected from moisture (rain) for 7 days. If rain is forecast within 7 days, protect by tenting the grouted area (at least 1 foot above surface).
- Not for use in hot tubs.
- Wait 7 days before rigorously cleaning tile and grout surface.
- Wait 7 days prior to exposing grout to full submersion.
- Use care on soft, highly polished surfaces to avoid scratching. Test a small area. Use of a sealer is always recommended on polished marble, stone, slate and other natural, porous tiles.
- Use of enzymatic floor cleaners will void all warranties.
- Do not use StarCure® Urethane Grout Cure Accelerator.
- Do not use solvent-based adhesives or sealers with QuartzLock Grout.
- Protect grout from freezing. Do not grout outdoors or in unheated areas when temperatures are expected to be below 40°F (5°C) within 3 days. If product freezes, return to room temperature and use as directed.
- Do not ingest.
- Keep out of the reach of children.
- Use protective skin coverings and eye wear
- Flush with water in case of contact
- See the container label for precautionary measures, handling and storage information.
- For Chemical Emergency, call CHEMTREC 24 hours, (800) 424-9300 in North America, (703) 527-3887 International (collect).
- For more information, consult the MSDS for this product.

TABLE 3 INSTALLATION - COVERAGE

Tile Size (inches) (cm)	Joint Width					
	1/16"	1/8"	3/16"	1/4"	3/8"	1/2"
1" x 1" x 1/4" (2.54 x 2.54 x .63)	63 (5.9)	32 (2.9)	NR NR	NR NR	NR NR	NR NR
2" x 2" x 1/4" (5.08 x 5.08 x .63)	126 (11.7)	63 (5.9)	NR NR	NR NR	NR NR	NR NR
4 1/4" x 4 1/4" x 5/16" (10.79 x 10.79 x .79)	214 (19.9)	107 (10.0)	71 (6.6)	54 (5.0)	36 (3.3)	27 (2.5)
4" x 8" x 1/2" (10.15 x 20.30 x 1.27)	168 (15.6)	84 (7.8)	56 (5.2)	42 (3.9)	28 (2.6)	21 (2.0)
6" x 6" x 1/2" (15.23 x 15.23 x 1.27)	189 (17.6)	95 (8.8)	63 (5.9)	47 (4.4)	32 (2.9)	24 (2.2)
8" x 8" x 3/8" (20.30 x 20.30 x .95)	337 (31.3)	168 (15.6)	112 (10.4)	84 (7.8)	56 (5.2)	42 (3.9)
12" x 12" x 3/8" (30.45 x 30.45 x .95)	505 (46.5)	253 (23.5)	168 (15.6)	126 (11.7)	84 (7.8)	63 (5.9)
13" x 13" x 3/8" (32.99 x 32.99 x .95)	547 (50.9)	274 (25.4)	182 (17.0)	137 (12.7)	91 (8.5)	68 (6.4)
16" x 16" x 3/8" (40.61 x 40.61 x .95)	673 (62.6)	337 (31.3)	224 (20.9)	168 (15.6)	112 (10.4)	84 (7.8)
18" x 18" x 3/8" (45.69 x 45.69 x .95)	758 (70.4)	379 (35.2)	253 (23.5)	189 (17.6)	126 (11.7)	95 (8.8)
24" x 24" x 3/8" (60.96 x 60.96 x .95)	1010 (93.9)	505 (46.9)	337 (31.3)	253 (23.5)	168 (15.6)	126 (11.7)

Approximate coverage in square feet per 18 lb unit or in square meters per 8.16 kg unit and may vary due to installation conditions



BUILDING CODES

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost

QuartzLock 2 Grout is available from professional distributors throughout the United States and Canada.

7. Warranty

StarQuartz Industries, Inc., ("StarQuartz") warrants that QuartzLock 2 Grout will be free from manufacturing defects and will not break down or deteriorate under normal usage for a

period of 2 years when installed in accordance with the written specifications of StarQuartz and

industry standard guidelines for commercial applications. For full warranty and warranty details, visit the www.StarQuartz.com website.

8. Maintenance

QuartzLock 2 Grout requires occasional cleaning with water and common grout cleaners. For best stain resistance, always clean spills immediately.

9. Technical Services

Contact StarQuartz Industries, Inc., or visit the www.StarQuartz.com website for technical assistance, including more detailed product information, literature, test results and assistance with project specifications.

StarQuartz also offers an AIA-approved Continuing Education Systems presentation / program (reference # VTGA1D4BE488).

10. Filing Systems

- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.