



Atlas Minerals & Chemicals, Inc.



DATA SHEET

3-41PI (10-11)
Supersedes 3-41PI (6-11)

REZKLAD® SG GROUT

DESCRIPTION

REZKLAD SG GROUT is a superior grade, acid and solvent resistant grout for quarry tile and brick paver floor systems installed by the Tiler's method.

TYPICAL USES

REZKLAD SG GROUT is recommended for the food processing, beverage, pharmaceutical and electronic industries that require long term performance of floors exposed to chemicals, mechanical abuse and rolling traffic.

REZKLAD SG GROUT is certifiable for use in USDA inspected facilities. It also offers resistance to hot water and steam wash downs and will not support the growth of bacteria.

REZKLAD SG GROUT is also an excellent product for re-grouting existing brick and tile floor joints that have eroded. The high bond strength feature provides maximum adhesion to shallow joints. The low odor of the grout permits re-grouting in plants without special ventilation. The water washing feature of REZKLAD SG GROUT eliminates the need for special masking or waxing of the brick or tile to prevent staining.

CHEMICAL RESISTANCE

Refer to the chemical resistance chart for specific information. REZKLAD SG GROUT complies with specifications of ASTM C658 and ANSI A118.3.

METHOD OF INSTALLATION

REZKLAD SG GROUT is designed to be installed by the Tiler's method. The quarry tile or brick pavers are set in a bond coat of REZKLAD SG GROUT or RED FURNANE® SETTING BED, Data Sheet 5-55PI, with a nominal 1/4" space between the masonry units. After the bond coat has set, the REZKLAD SG GROUT is floated into the joints.

AVAILABLE COLORS

Standard colors are black, gray and red.

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ASTM C905	125 lb./cu. ft. (2.00 g./cc.)
Bond Strength, 7 days @ 77°F (25°C)	ASTM C321	Brick fails
Tensile Strength, 7 days @ 77°F (25°C)	ASTM C307	2,100 psi. (14.5 MPa)
Compressive Strength, 7 days @ 77°F (25°C)	ASTM C579	10,600 psi. (73.1 MPa)
Flexural Strength, 7 days @ 77°F (25°C)	ASTM C580	3,600 psi. (24.8 MPa)
Coefficient of Thermal Exp., in./in./°F (cm./cm./°C)	ASTM C531	3.56 x 10 ⁻⁵ (6.42 x 10 ⁻⁵)
Linear Shrinkage	ASTM C531	0.21%
Water Absorption	ASTM C413	0.19%
Initial Set	ANSI A118.3	> 2 hours

PACKAGING – REZKLAD SG GROUT

32 lb. 6 oz. (14.7 kg.) Unit Consisting of:

One - 1/2-gal. can of Resin (4 lb. 6 oz. [2.0 kg.])
One - 1-qt. can of Hardener (1 lb. 14 oz. [851 g.])
One - bag of Powder (26 lb. 2 oz. [11.9 kg.])
Nylon Scrub Pad, Rubber Gloves

323 lb. 9 oz. (146.8 kg.) Unit Consisting of:

One - 5-gal. pail of Resin (43 lb. 9 oz. [19.8 kg.])
One - 5-gal. pail of Hardener (18 lb. 12 oz. [8.5 kg.])
Five - bags of Powder (52 lb. 4 oz. [23.7 kg.]) ea.
Nylon Scrub Pad, Rubber Gloves

TEMPERATURE DURING APPLICATION

Store REZKLAD SG GROUT at 70°F (21°C) to 80°F (27°C) for 24 hours prior to use. The best working characteristics of the grout will be attained when the temperature of the substrate, air and REZKLAD SG GROUT are between 60°F (16°C) and 85°F (29°C). Minimum temperature for installation is 50°F (10°C). At temperatures below 50°F (10°C), the product may not set or cure properly.

MEASURING OF THE REZKLAD SG GROUT COMPONENTS

In the absence of a scale to weigh the components, approximate volume measurements are provided. Select a clean, dry, plastic or metal container equal to or larger than the desired component volume. Using a graduated measuring cup, measure and

NOTE: ATLAS makes it a practice to continuously update and enhance our CCM (Corrosion Resistant Construction Materials) products. For the most recent version of any Data Sheet, please visit our Web site at www.atlasmin.com.

ESTIMATING TABLES – REZKLAD SG GROUT

FLOOR AREA

Brick Size	1/4" Wide x Full Depth Joint Square Feet per Unit	
	32 lb. 6 oz. Unit	323 lb. 9 oz. Unit
6" x 6" x 1/2"	79 sq. ft.	791 sq. ft.
6" x 6" x 3/4"	53 sq. ft.	528 sq. ft.
8" x 3-7/8" x 1"	34 sq. ft.	348 sq. ft.
8" x 3-7/8" x 1-3/16"	29 sq. ft.	293 sq. ft.
8" x 3-7/8" x 1-3/8"	25 sq. ft.	253 sq. ft.
8" x 4" x 1/2"	71 sq. ft.	710 sq. ft.
8" x 4" x 1-3/8"	25 sq. ft.	258 sq. ft.
8" x 4" x 1-1/2"	23 sq. ft.	237 sq. ft.

COVE BASE

REZKLAD SG GROUT may be used for the cove base joints. Maximum joint width for these applications is 1/4" (6.4 mm.). Add approximately 15% additional powder by weight to standard grout mix to achieve mortar consistency.

Cove Size	1/4" Wide Full Depth Joint Linear Feet per Unit	
	32 lb. 6 oz. Unit	323 lb. 9 oz. Unit
5" H x 6" L x 1/2"	158 lin. ft.	1,588 lin. ft.
5" H x 6" L x 3/4"	105 lin. ft.	1,058 lin. ft.
5" H x 8" L x 1-3/16"	57 lin. ft.	581 lin. ft.
5" H x 8" L x 1-3/8"	49 lin. ft.	501 lin. ft.
3-7/8" H x 8" L x 1-3/8"	71 lin. ft.	714 lin. ft.

Bond Coat: @ 3/32"33 ft.² per 32 lb. 6 oz. Unit..... 331 ft.² per 323 lb. 9 oz. Unit
 Bond Coat: @ 1/8"24 ft.² per 32 lb. 6 oz. Unit..... 247 ft.² per 323 lb. 9 oz. Unit

Material estimating quantities may vary depending on job conditions and application techniques. Material quantities above are theoretical and don't include a safety factor. Above estimating is based on a weight ratio of 100 parts resin to 43 parts hardener to 600 parts powder. Decreasing the powder component to 550 parts will decrease the estimated coverage by approximately 5%; Decreasing the powder component to 500 parts will decrease the estimated coverage by approximately 10%

pour the prescribed fluid ounces (liters) of water into the container. Mark the fluid level. Remove the water and dry the container. At the fluid level mark, insert a self-tapping sheet metal screw through the side wall of the container. Clearly mark the container for the intended use resin, hardener or powder and the volume measurement.

Powder component: Loosely pour the powder to the fluid level mark. Do not shake the powder container to settle powder. Powder volumes listed on the Data Sheet are approximate.

MIXING OF THE REZKLAD SG GROUT

32 lb. 6 oz. (14.7 kg.) Unit:

Stir the contents of the resin and hardener containers prior to blending. Mixing of the components should be with a KOL type mixer with a 5-gallon capacity. Mixing speed should be between 60 and 75 RPM. The amount of the powder may be varied within the limits stated below to adjust the mixed grout consistency. Decreasing the powder component will decrease the estimated coverage. Refer to the Mix Ratio Chart to proportionally decrease component quantities to attain smaller batch sizes.

- a. Place the contents of the 1/2-gallon can (4 lb. 6 oz. [2.0 kg.]) of REZKLAD SG GROUT Resin in the 5-gallon capacity mechanical mixer. Scrape the sides of the resin can to remove all the resin.
- b. Add contents of the 1-quart can (1 lb. 14 oz. [851 g.]) of REZKLAD SG GROUT Hardener. Mix the resin and hardener thoroughly for approximately two minutes.
- c. The amount of powder may be varied to adjust the mixed grout consistency. Add between 26 lb. 2 oz. (11.9 kg.) to 21 lb. 6 oz. (9.7 kg.) of REZKLAD GROUT Powder. Mix the combined components for approximately two minutes or until all the powder is thoroughly dispersed.

MIXING OF THE REZKLAD SG GROUT

323 lb. 9 oz. (146.8 kg.) Unit:

Stir the contents of the resin and hardener containers prior to blending. Mixing of the components should be with a KOL type mixer with a 5-gallon capacity. Mixing speed should be between 60 and 75 RPM. The amount of the powder may be varied within the limits stated below to adjust the mixed grout consistency. Decreasing the powder component will decrease the estimated coverage.

MIX RATIO CHART – REZKLAD SG GROUT

Component	Weight		Volume	
	Parts by Weight	Weight	Parts by Volume	Volume
REZKLAD SG GROUT Resin	10	4 lb. 6 oz. (2.0 kg.)	100	59 fl. oz. (1.75 liters)
REZKLAD SG GROUT Hardener	43	1 lb. 14 oz. (851 g.)	51	29 fl. oz. (0.86 liters)
REZKLAD GROUT Powder	600	26 lb. 2 oz. (11.9 kg.)	419	260 fl. oz. (7.7 liters)
	550	23 lb. 14 oz. (10.9 kg.)	384	240 fl. oz. (7.1 liters)
	500	21 lb. 12 oz. (9.9 kg.)	349	217 fl. oz. (6.5 liters)

Batch Size: 0.26 to 0.23 ft.³ (7.2 to 6.4 liters)*

*Proportionally increase or decrease component quantities to attain larger or smaller batch sizes.

Refer to the Mix Ratio Chart to proportionally increase or decrease component quantities to attain larger or smaller batch sizes.

The following instructions are for a batch size of 32 lb. 6 oz. (14.7 kg.).

- Place 4 lb. 6 oz. (2.0 kg.) of REZKLAD SG GROUT Resin in the 5-gallon capacity mechanical mixer.
- Add 1 lb. 14 oz. (851 g.) of REZKLAD SG GROUT Hardener. Mix the resin and hardener thoroughly for approximately two minutes.
- The amount of powder may be varied to adjust the mixed grout consistency. Add between 26 lb. 2 oz. (11.9 kg.) to 21 lb. 6 oz. (9.7 kg.) of REZKLAD GROUT Powder. Mix the combined components for approximately two minutes or until all the powder is thoroughly dispersed.

APPLICATION OF THE REZKLAD SG GROUT

- Place the freshly mixed REZKLAD SG GROUT on the tile or pavers.
- With a rubber faced trowel work the grout into the open joints.
- The rubber faced trowel is used to remove excess grout. Hold the trowel with the flat edge nearly perpendicular to the surface and pull diagonally across the grouted joints. Remove as much residue as possible from the tile surface.

A second grout pass may be required on pavers 1-3/16" thick or greater to compensate for any settling or low joints. The second pass of grout must be applied within 2 to 24 hours following the initial grout application and cleaning. Occasional voids may form by entrapped air rising to the surface. The voids should be filled upon discovery and preferably while joints are still soft.

TYPICAL WORKING AND SETTING TIMES OF THE REZKLAD SG GROUT

Temperature	Working Time	Support Foot Traffic
50°F (10°C)	65 minutes	24 hours
60°F (16°C)	55 minutes	9 hours
75°F (24°C)	45 minutes	7-1/2 hours
85°F (29°C)	25 minutes	4-1/2 hours

CLEANING OF THE REZKLAD SG GROUT

- Prepare 5-gallon pails of warm cleaning water. A small amount of liquid detergent added to warm water will aid the cleaning process.
 - Change cleaning water frequently as it becomes laden with grout residue.
 - The removal of the grout residue may begin immediately after the grout has been placed in the joint.
 - Complete the cleaning of the tile within the working time listed on the "Typical Working and Setting Times" chart.
 - Replace nylon scrub pads or cellulose sponges as they become worn or laden with excess grout residue.
 - Rubber gloves should be worn at all times.
- Apply a small amount of warm water to the surface of the tile.
 - Using a nylon scrub pad or cellulose sponge, loosen the grout residue from the tile with a circular motion until a white froth appears.
 - Using a damp cellulose sponge remove the froth. Apply sufficient pressure to remove residue but not enough to pull grout from the joints.
 - Continue the cleaning procedure frequently rinsing the cellulose sponge. Complete the cleaning with clean water until the surface is free of any haze.
A damp cotton towel or wool blanket can be used by dragging it across the surface of the tile. Frequently rinse and clean the cotton towel or wool blanket. Repeat the cleaning with clean water until surface is free of any haze.
 - A cellulose sponge may be used for final touch up cleaning.

After cleaning is completed, the floor area must be kept free of liquids and contaminants until the grout can support foot traffic as listed on the "Typical Working and Setting Times" chart.

RE-GROUTING EXISTING FLOORS

REZKLAD SG GROUT can be used to re-grout existing tile and brick floor joints and as a bond coat to set replacement or loose tile or brick.

RE-GROUTING ESTIMATING TABLE OF THE REZKLAD SG GROUT

REZKLAD SG GROUT – 32 lb. 6 oz. Unit Square Feet per Unit 1/4" Wide Joint x Joint Depth			
Joint Depth	Brick Face Size		
	6" x 6"	8" x 3-7/8"	8" x 4"
3/8"	105 sq. ft.	92 sq. ft.	94 sq. ft.
1/2"	79 sq. ft.	69 sq. ft.	71 sq. ft.
5/8"	63 sq. ft.	55 sq. ft.	56 sq. ft.
3/4"	53 sq. ft.	46 sq. ft.	47 sq. ft.
1"	—	34 sq. ft.	35 sq. ft.
1-3/16"	—	29 sq. ft.	29 sq. ft.
1-3/8"	—	25 sq. ft.	25 sq. ft.
1-1/2"	—	—	23 sq. ft.

Tile and Brick Surface Preparation: The tile or brick must be free of oils, grease, fats and other contaminants.

- Clean floor area with a scrub brush and a commercial grade detergent based degreasing solution. An alternate to detergent degreasers is a mixture of one pint trisodium phosphate (TSP) or sodium carbonate to two gallons of water. After scrubbing, rinse thoroughly with clean water. Repeat as necessary to remove any remaining contaminants.
- Remove excess and standing water by vacuuming. Follow product manufacturer's recommendations for proper use, handling and disposal of liquids.

Joint Preparation:

- Saw cut the joints. A 5" or 6" diameter diamond tip masonry saw blade is suggested.
Joint Width: Cut the joints the full width of the original joint to expose the side of the tile joint. Minimum joint width is 1/8" (3.2 mm.).
Joint Depth: Cut joint depth a minimum of 3/8" (9.5 mm.) deep.
- Remove all debris by vacuuming. Wipe tile face and tile joints with dampened sponge to remove residual dust.

Follow grouting and cleaning techniques as described in "Application of the REZKLAD SG GROUT" and "Cleaning of the REZKLAD SG GROUT".

CLEANING OF TOOLS AND EQUIPMENT

Steel wool, soap and warm water will remove the materials referred to in this Data Sheet from mixing tools and equipment if cleaning is done immediately after use. Solvents, such as methyl ethyl ketone, toluene or xylene, will have to be used after the material has begun to harden. Fully hardened material will have to be removed by mechanical means.

Dispose of residues and wastes in accordance with the directions in the Safety Data Sheets and government regulations.

STORAGE AND SHELF LIFE

Store all materials in a cool, dry environment. Keep all materials out of direct sunlight. Ideal storage temperature is 75°F (24°C). Protect from freezing. In unopened original containers, the materials referred to in this Data Sheet have a shelf life of approximately one year.

PRODUCT SPECIFICATION

The grout shall be REZKLAD SG GROUT as manufactured by Atlas Minerals & Chemicals, Inc. The grout shall be certifiable for use in USDA inspected facilities and comply with the requirements of ASTM C658 and ANSI A118.3. The grout must be resistant to organic acids, organic solvents and inorganic acids. During the installation, the grout shall be low odor, water cleanable and not require a wax coating for the surface of the masonry units.

PRECAUTIONS

The materials referred to in this Data Sheet are for Industrial Use Only. They contain materials that present handling and potential health hazards. Consult Safety Data Sheets and the container labels for complete precautionary information.

TECHNICAL SERVICES

ATLAS maintains a staff of Technical Service Representatives who are available to assist you with the use of ATLAS products. In the event of difficulties with the application of ATLAS materials, the installation should be stopped immediately and ATLAS' Technical Service Department consulted for assistance.

WARRANTY

ATLAS warrants that its products will be free from defects in workmanship and materials under normal use for a period of one (1) year from the date of shipment by ATLAS (provided the products are installed before the expiration of the shelf life). THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR THE PURPOSE FOR THIS PRODUCT WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. ATLAS' LIABILITY FOR ALLEGED BREACH OF THIS WARRANTY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT (BUT NOT INCLUDING REMOVAL OF THE DEFECTIVE PRODUCT OR INSTALLATION OF REPLACEMENT PRODUCTS). ATLAS SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES DURING THE WARRANTY PERIOD OR THEREAFTER. **ATLAS' WARRANTY IS VOIDED IF PAYMENT FOR PRODUCT IS NOT RECEIVED IN FULL.**

CHEMICAL RESISTANCE OF REZKLAD® SG GROUT (3-41PI)

- Acetic Acid, to 10%
- Beer
- Citric Acid, to 10%
- EcoLab “ Lift 11 “
- EcoLab “ XY12 “
- EcoLab “ Ster-bac “
- EcoLab “ P3Oxonia “
- EcoLab “ Enforce “
- EcoLab “ Foam Force LP “
- EcoLab “ HC-10 “
- EcoLab “ Monacid-250 “
- Ethyl Alcohol
- Hydrochloric Acid, to 20%
- Lactic Acid, to 20%
- Loeffler “ Larasept “
- Loeffler “ Larapur-283 “
- Loeffler “ Larasept O-A/B “
- Milk
- Mineral Spirits
- Nitric Acid, to 10%
- Phosphoric Acid, to 25%
- Sodium Hydroxide, to 25%
- Sodium Hypochlorite, to 5%
- Soft Drinks
- Sugar, Saturated Solution
- Sulfuric Acid, to 40%
- Toluene
- Trisodium Phosphate, to 10%
- Vegetable Oil
- Xylene

Note - The information presented in the chemical resistance tables is based on judgments derived from laboratory testing and field service performance. The tables have been prepared as a guide to performance. No guarantee of results is made or implied and no liability in connection with this information is assumed. In actual service, floors and walls protected with REZKLAD SG GROUT are subjected to splash and spillage, as well as dilution effects of wash water, mixing with other solutions, wetting and drying cycles, temperature cycling and cleaning procedures. Contact with certain concentrated acids may cause the surface of REZKLAD SG GROUT to change color. This color change will not affect the chemical resistance. For immersion service, contact ATLAS for recommendation. The information presented herein should be supplemented by in-service testing. The data furnished in the tables may be revised on the basis of further testing.