



Atlas Minerals & Chemicals, Inc.



# DATA SHEET

8-60PI (9-18)

## REZKLAD<sup>®</sup> N STRUCTURAL GROUT

### DESCRIPTION

REZKLAD N STRUCTURAL GROUT is a pourable setting and grouting novolac epoxy compound.

### TYPICAL USES

REZKLAD N STRUCTURAL GROUT is specially formulated for grouting machinery, bearing plates, columns and setting anchoring bolts and posts. REZKLAD N STRUCTURAL GROUT can also be used to repair concrete and masonry structures. REZKLAD N STRUCTURAL GROUT withstands vibration and exhibits excellent compressive strengths. REZKLAD N STRUCTURAL GROUT has been developed to provide outstanding self-leveling, pouring and flow characteristics for ease of installation, combined with rapidly attained high compressive strengths. REZKLAD N STRUCTURAL GROUT is certifiable for use in USDA inspected facilities.

### CHEMICAL RESISTANCE

REZKLAD N STRUCTURAL GROUT is resistant to dilute acids, alkalis and salts. Refer to the chemical resistance chart for specific information.

### AVAILABLE COLORS

REZKLAD N STRUCTURAL GROUT is available in gray only.

### PACKAGING AND COVERAGE

#### REZKLAD N STRUCTURAL GROUT

**398 lb. 9 oz. (181.0 kg.) Unit Consisting of:**

- One - 5-gal. pail of Resin (48 lb. [21.8 kg.] )
- One - 5-gal. pail of Hardener (22 lb. 1 oz. [10.0 kg.] )
- Six - bags of Powder (54 lb. 12 oz. [24.8 kg.] ) ea.
- Coverage: Approx. 3.44 cu. ft. (97.4 liters) per unit

### COMPRESSIVE STRENGTH (ASTM C579)

Time at 75°F (24°C)	PSI (Typical)
24 hours	6,340 psi. (43.8 MPa)
48 hours	12,060 psi. (83.4 MPa)
72 hours	13,198 psi. (91.2 MPa)
96 hours	14,060 psi. (97.2 MPa)

## PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ASTM C905	116 lb./cu. ft. (1.86 g./cc.)
Bond Strength, 7 days @ 77°F (25°C)	—	Concrete fails
Tensile Strength, 7 days @ 77°F (25°C)	ASTM C307	1,790 psi. (12.4 MPa)
Compressive Strength, 7 days @ 77°F (25°C)	ASTM C579	14,800 psi. (102.3 MPa)
Flexural Strength, 7 days @ 77°F (25°C)	ASTM C580	4,300 psi (29.7 MPa)
Coefficient of Thermal Exp., in./in./°F (cm./cm./°C)	ASTM C531	2.24 x 10 <sup>-5</sup> (4.05 x 10 <sup>-5</sup> )
Water Absorption	ASTM C413	< 0.1%
Linear Shrinkage	ASTM C531	< 0.15%
Impact Resistance, 1" Thick	Gardner Tester	140 in. lb.
Maximum Service Temp.	—	150°F (66°C)

## SURFACE PREPARATION

REZKLAD N STRUCTURAL GROUT can be applied to concrete and metal surfaces. The substrate must be structurally sound, clean, dry and free of all contaminants, such as sealers, curing compounds, coatings, oil, dirt, dust and water. Previously applied coatings or paint must be removed.

## TEMPERATURE DURING APPLICATION

Store REZKLAD N STRUCTURAL 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 N STRUCTURAL GROUT are between 60°F (16°C) and 85°F (29°C). The minimum temperature for installation is 55°F (13°C).

## MIXING OF THE

### REZKLAD N STRUCTURAL GROUT

Mixing of the components should be done with a KOL type mixer with a 5-gallon capacity. The mixing speed should be between 60 and 75 RPM. A hand drill equipped with a "Jiffy" type mixer at a mixing speed between 300 and 500 RPM may also be used.

**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](http://www.atlasmin.com).**

**MIX RATIO CHART – REZKLAD N STRUCTURAL GROUT**

<b>REZKLAD N STRUCTURAL GROUT</b>	<b>Weight</b>	<b>Volume</b>
REZKLAD N STRUCTURAL GROUT Resin	4 lb. (1.82 kg.)	52.0 fl. oz. (1.5 liters)
REZKLAD N STRUCTURAL GROUT Hardener	1 lb. 13 oz. (0.82 kg.)	28.5 fl. oz. (0.8 liters)
REZKLAD N STRUCTURAL GROUT Powder	27 lb. 6 oz. (12.4 kg.)	1/2 of 27 lb. 6 oz. (12.4 kg.) bag
<b>Batch Size</b>	33 lb. 3 oz. (15.0 kg.)	0.28 cu. ft. (8.2 liters)

**398 lb. 9 oz. (181.0 kg.) Unit:**

- Into two clean and dry 5-gallon pails, divide the contents of one of the 54 lb. 12 oz. (24.8 kg.) bags of REZKLAD N STRUCTURAL GROUT Powder into two equal parts by volume.
- Combine 52 fluid ounces (1.5 liters) of REZKLAD N STRUCTURAL GROUT Resin and 28.5 fluid ounces (0.8 liters) of REZKLAD N STRUCTURAL GROUT Hardener in the 5-gallon capacity mechanical mixer. Mix thoroughly for approximately two minutes.
- Slowly add the 1/2 bag REZKLAD N STRUCTURAL GROUT Powder, 27 lb. 6 oz. (12.4 kg.), as prepared in Step (a.).
- Mix the combined components for approximately two minutes or until all the powder is thoroughly dispersed.

**Note:** The amount of the powder may be varied slightly to obtain the desired consistency. Decreasing the powder component will decrease the estimated unit coverage.

**APPLICATION OF THE REZKLAD N STRUCTURAL GROUT**

When forming is necessary, coat the forms with a release agent such as petroleum jelly or paste wax. Care must be exercised to ensure that the release agent does not get on the surface to be bonded. Reinforcing bars of 1/2" (12.7 mm.) or 3/4" (19.1 mm.) diameter can be used to provide additional reinforcement in corners and for cross sections greater than 2" (50.8 mm.) thick. Pour the REZKLAD N STRUCTURAL GROUT from one end of the frame work. This method forces air out, limiting any voids under the equipment. On thick cross sections, install 2" (50.8 mm.) to 3" (76.2 mm.) of REZKLAD N STRUCTURAL GROUT per pour. Allow approximately 1-1/2 hours between pours, but not more than 24 hours should elapse to ensure that the newly poured material will bond to the previously poured grout. If air bubbles appear on the surface, they can be eliminated by brushing or spraying the surface with methyl ethyl ketone or similar solvent.

**TYPICAL WORKING TIMES FOR A BATCH SIZE OF 33 lb. 3 oz. (15.0 kg.) UNIT**

<b>Temperature</b>	<b>Working Time</b>
55°F (13°C)	40 to 45 minutes
65°F (18°C)	30 to 40 minutes
75°F (24°C)	20 to 30 minutes
85°F (29°C)	10 to 20 minutes

**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 solvent 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 system shall be REZKLAD N STRUCTURAL GROUT as manufactured by Atlas Minerals & Chemicals, Inc.

**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® N STRUCTURAL GROUT (8-60PI)

	80°F	150°F
Acetic Acid, to 10%	R	R
Acetic Acid, 10% to 50%	C	N
Acetone	C	N
Alum or Aluminum Sulfate	R	R
Ammonium Chloride, Nitrate, Sulfate	R	R
Ammonium Hydroxide, to 30%	R	R
Aniline	C	N
Aqua Regia	N	N
Barium Chloride, Sulfate	R	R
Beer	R	R
Benzene	R	R
Benzene Sulfonic Acid, 10%	R	R
Benzoic Acid	R	R
Black Liquor	R	R
Bleaching Liquor, to 2%	R	R
Bleaching Liquor, Concentrated	N	N
Boric Acid	R	C
Butter	R	R
Butyl Acetate	R	R
Butyl Alcohol	R	R
Butyric Acid	C	N
Calcium Chloride, Nitrate, Sulfate	R	R
Calcium Hydroxide	R	R
Calcium Hypochlorite	R	C
Casein	R	R
Chlorine, Dry	C	-
Chlorine, Wet	C	-
Chlorine Water	R	-
Chloroacetic Acid, to 10%	C	C
Chloroform	R	-
Chromic Acid, to 30%	R	C
Citric Acid, to 10%	R	R
Copper Chloride, Nitrate, Sulfate	R	R
Ether	R	-
Ethyl Acetate	C	-
Ethyl Alcohol	R	C
Ethylene Dichloride	C	-
Ethylene Glycol	R	R
Fatty Acids	C	C
Ferric Chloride, Nitrate, Sulfate	R	R
Fluosilicic Acid, 30%	RA	RA
Formaldehyde, to 37%	R	R
Formic Acid, 10%	R	C
Grape Juice	R	R
Hydrobromic Acid, to 20%	R	R
Hydrochloric Acid, to 37%	R	R
Hydrofluoric Acid, to 20%	RA	RA
Hydrogen Peroxide	R	-

	80°F	150°F
Hypochlorous Acid, to 5%	R	C
Jet Fuel	R	-
Kerosene	R	-
Lactic Acid, to 10%	R	C
Lactic Acid, above 10%	N	N
Lard	R	R
Lux Liquid	R	R
Magnesium Chloride, Nitrate, Sulfate	R	R
Maleic Acid	C	C
Methyl Alcohol	C	C
Methyl Ethyl Ketone	N	-
Methylene Chloride	N	-
Milk	R	R
Mineral Oil	R	R
Nickel Chloride, Nitrate, Sulfate	R	R
Nitric Acid, to 30%	R	R
Oleic Acid	C	C
Oxalic Acid	R	C
Peracetic Acid, 1%	R	R
Perchloroethylene	C	C
Petroleum	R	R
Phenol, to 5%	C	-
Phosphoric Acid	R	R
Picric Acid, to 5%	R	N
Potassium Chloride, Nitrate, Sulfate	R	R
Potassium Hydroxide, to 25%	R	R
Potassium Hydroxide, 25% to 50%	RA	RA
Salt, Saturated Solution	R	R
Sodium Bicarbonate, Carbonate	R	R
Sodium Chloride, Nitrate, Phosphate	R	R
Sodium Sulfate, Sulfide	R	R
Sodium Hydroxide, to 25%	R	R
Sodium Hydroxide, 25% to 50%	RA	RA
Sodium Hypochlorite, to 6%	R	R
Sodium Hypochlorite, 6% to 12%	R	-
Stannic Chloride	R	N
Stearic Acid	C	C
Sugar, Saturated Solution	R	R
Sulfuric Acid, to 93%	R	C
Sulfurous Acid, to 10%	R	R
Toluene	R	R
Toluene Sulfonic Acid	R	C
Tomato Juice	R	R
1,1,1-Trichloroethane	R	R
Trisodium Phosphate	R	R
Turpentine	R	-
Urea, to 20%	R	R
Urine	R	C

	80°F	150°F
Vegetable Oil	R	R
Vinegar	R	R
Water, Fresh	R	R
Water, Distilled	R	R
Water and Sewage	R	R
Xylene	R	R
Zinc Chloride, Nitrate, Sulfate	R	R

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### KEY

- R - Recommended
- N - Not Recommended
- C - Conditional; May be serviceable if the contaminant is immediately removed or washed off the surface.
- A - Silica Filler may be attacked.

**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, areas protected with REZKLAD N STRUCTURAL 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 N STRUCTURAL 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.