Atlas Minerals & Chemicals, Inc.

DATA SHEET

8-59PI (8-99[2])
Supersedes 8-59PI (1-98)

REZKLAD® MACHINERY GROUT

DESCRIPTION
REZKLAD MACHINERY GROUT is a 100% solids, epoxy resin, pourable setting and grouting compound.

TYPICAL USES
REZKLAD MACHINERY GROUT is specially formulated for grouting machinery, bearing plates, columns and setting anchoring bolts and posts. REZKLAD MACHINERY GROUT can also be used to repair concrete and masonry structures. REZKLAD MACHINERY GROUT withstands vibration and exhibits excellent compressive strengths. REZKLAD MACHINERY 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 MACHINERY GROUT is certifiable for use in USDA inspected facilities.

CHEMICAL RESISTANCE
REZKLAD MACHINERY GROUT is resistant to dilute acids, alkalies and salts. Refer to the chemical resistance chart for specific information.

AVAILABLE COLORS
REZKLAD MACHINERY GROUT is available in gray only.

PACKAGING AND COVERAGE
REZKLAD MACHINERY GROUT
30 lb. 14 oz. (14.0 kg.) Unit Consisting of:
One - 1/2-gal. can of Resin (3 lb. 2 oz. [1.4 kg.])
One - 1-pint can of Hardener (6 oz. [170 g.])
One - bag of Powder (27 lb. 6 oz. [12.4 kg.])
Coverage: Approx. 0.22 cu. ft. (6.2 liters) per unit

247 lb. (112.0 kg.) Unit Consisting of:
One - 5-gal. pail of Resin (25 lb. [11.3 kg.])
One - 1/2-gal. can of Hardener (3 lb. [1.4 kg.])
Four - bags of Powder (54 lb. 12 oz. [24.8 kg.]) ea.
Coverage: Approx. 1.78 cu. ft. (50.4 liters) per unit

SURFACE PREPARATION
REZKLAD MACHINERY 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.

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ASTM C905	138 lb./cu. ft. (2.21 g./cc.)
Bond Strength, 7 days @ 77°F (25°C)		Concrete fails
Tensile Strength, 7 days @ 77°F (25°C)	ASTM C307	2,300 psi. (15.9 MPa)
Compressive Strength, 7 days @ 77°F (25°C)	ASTM C579	15,500 psi. (107 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	2.24×10^{-5} (4.05×10^{-5})
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)

TEMPERATURE DURING APPLICATION
Store REZKLAD MACHINERY 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 MACHINERY 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 MACHINERY 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.

COMPRESSIVE STRENGTH (ASTM C579)

Time at 75°F (24°C)	PSI (Typical)
4 hours	1,470 psi. (10.1 MPa)
8 hours	5,555 psi. (38.3 MPa)
16 hours	13,800 psi. (95.1 MPa)
24 hours	14,500 psi. (100 MPa)
48 hours	15,300 psi. (105 MPa)
72 hours	15,500 psi. (107 MPa)
96 hours	15,500 psi. (107 MPa)

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TYPICAL WORKING TIMES FOR A BATCH SIZE OF 30 lb. 14 oz. (14.0 kg.) UNIT

Temperature	Working Time
55°F (13°C)	50 to 55 minutes
65°F (18°C)	40 to 50 minutes
75°F (24°C)	30 to 40 minutes
85°F (29°C)	20 to 30 minutes

30 lb. 14 oz. (14.0 kg.) Unit:

a. Combine the contents of the 1/2-gallon can (3 lb. 2 oz. [1.4 kg.]) of REZKLAD MACHINERY GROUT Resin with the 1-pint can (6 oz. [170 g.]) of REZKLAD MACHINERY GROUT Hardener in the 5-gallon capacity mechanical mixer. Mix thoroughly for approximately two minutes.
b. Slowly add the 27 lb. 6 oz. (12.4 kg.) bag of REZKLAD MACHINERY GROUT Powder.
c. Mix the combined components for approximately two minutes or until all the powder is thoroughly dispersed.

247 lb. (112.0 kg.) Unit:

a. 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 MACHINERY GROUT Powder into two equal parts by volume.
b. Combine 42 fluid ounces (1.245 liters) of REZKLAD MACHINERY GROUT Resin and 6 fluid ounces (0.175 liters) of REZKLAD MACHINERY GROUT Hardener in the 5-gallon capacity mechanical mixer. Mix thoroughly for approximately two minutes.
c. Slowly add the 1/2 bag REZKLAD MACHINERY GROUT Powder, 27 lb. 6 oz. (12.4 kg.), as prepared in Step (a.).
d. 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 MACHINERY 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 MACHINERY 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 MACHINERY 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.

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 Material 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 MACHINERY 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 Material Safety Data Sheets and the container labels for complete precautionary information.

MIX RATIO CHART - REZKLAD MACHINERY GROUT

REZKLAD MACHINERY GROUT	Weight	Volume
REZKLAD MACHINERY GROUT Resin	3 lb. 2 oz. (1.4 kg.)	42 fl. oz. (1.245 liters)
REZKLAD MACHINERY GROUT Hardener	6 oz. (170 g.)	6 fl. oz. (0.175 liters)
REZKLAD MACHINERY GROUT Powder	27 lb. 6 oz. (12.4 kg.)	1/2 of 54 lb. 12 oz. (24.8 kg.) bag
Batch Size	30 lb. 14 oz. (14.0 kg.)	0.22 cu. ft. (6.3 liters)

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.**

Note: Atlas makes it a practice to continuously update and enhance our CCM (Corrosion Resistant Construction Materials) products. This may result in slight discrepancies between our printed Data Sheets and the current version. For the most recent version of any Data Sheet, please visit our Web site at www.atlasmin.com

CHEMICAL RESISTANCE OF REZKLAD® MACHINERY GROUT (8-59PI)

	80°F	150°F
Acetic Acid, to 5%	R	C
Acetic Acid, 5% to 10%	C	N
Acetic Acid, 10% to 50%	N	N
Acetone	N	—
Alum or Aluminum Sulfate	R	R
Ammonium Chloride, Nitrate, Sulfate	R	R
Ammonium Hydroxide, 10%	R	R
Ammonium Hydroxide, 30%	R	C
Barium Chloride, Sulfate	R	R
Beer	R	R
Benzene Sulfonic Acid, 10%	R	C
Benzoic Acid	R	R
Black Liquor	R	C
Bleaching Liquor, to 2%	R	R
Bleaching Liquor, concentrated	N	N
Boric Acid	R	R
Butyl Alcohol	N	N
Calcium Chloride, Nitrate, Sulfate	R	R
Calcium Hydroxide	R	R
Calcium Hypochlorite	C	N
Chlorine Water	R	—
Chloroacetic Acid, to 10%	C	N
Chromic Acid, to 5%	C	N
Citric Acid to 40%	C	N
Copper Chloride, Nitrate, Sulfate	R	R
Ether	R	—
Ethyl Alcohol to 20%	R	—
Ethylene Glycol	R	R
Fatty Acids	N	N
Ferric Chloride, Nitrate, Sulfate	R	C
Fluosilicic Acid, 30%	A	A
Formaldehyde, to 37%	R	C
Grape Juice	R	C
Hydrobromic Acid, to 20%	R	C
Hydrobromic Acid, above 20%	C	N
Hydrochloric Acid, 20% to 36%	C	N
Hydrofluoric Acid, to 20%	A	A
Hydrofluoric Acid, 20% to 50%	A	N
Hydrogen Peroxide	R	—
Hypochlorous Acid, to 5%	C	N
Jet Fuel	N	—
Kerosene	N	—
Lactic Acid, to 5%	C	N
Lard	N	N
Lux Liquid	R	C
Magnesium Chloride, Nitrate, Sulfate	R	R
Maleic Acid	N	N
Methyl Alcohol	R	C
Methylene Chloride	N	—

	80°F	150°F
Methyl Ethyl Ketone	N	N
Milk	R	C
Mineral Oil	R	R
Nickel Chloride, Nitrate, Sulfate	R	R
Nitric Acid, to 5%	R	C
Nitric Acid, 5% to 10%	C	N
Petroleum	C	C
Phenol, to 5%	N	N
Phosphoric Acid, to 25%	R	C
Phosphoric Acid, 25% to 50%	C	C
Phosphoric Acid, above 50%	N	N
Picric Acid, to 5%	N	N
Potassium Chloride, Nitrate, Sulfate	R	R
Potassium Hydroxide, to 25%	R	C
Potassium Hydroxide, 25% to 50%	C	N
Sodium Bicarbonate, Carbonate	R	R
Sodium Chloride, Nitrate, Phosphate	R	R
Sodium Sulfate, Sulfide	R	R
Sodium Hydroxide, to 25%	R	C
Sodium Hydroxide, 25% to 50%	C	C
Sodium Hypochlorite, to 6%	C	C
Stannic Chloride	R	N
Sugar, Saturated Solutions	N	N
Sulfuric Acid, to 40%	R	C
Sulfuric Acid, 40% to 50%	C	N
Sulfuric Acid, above 50%	N	N
Sulfurous Acid, to 10%	R	R
Toluene	N	N
Toluene Sulfonic Acid	C	N
Tomato Juice	C	N
Trichloroethylene	N	N
Trisodium Phosphate	R	C
Turpentine	C	—
Urea, to 20%	R	R
Urine	R	C
Vegetable Oil	C	N
Vinegar	R	C
Water, Fresh	R	R
Water, Distilled	R	R
Water and Sewage	R	C
Xylene	N	N
Zinc Chloride, Nitrate, Sulfate	R	R

(8-99[2])

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. Sealing the surface may prolong the life.

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. 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.