



Atlas Minerals & Chemicals, Inc.



DATA SHEET

3-103PI (1-14)
Supersedes 3-103PI (3-06)

REZKLAD® E-FLOORING COMPOUND / REZKLAD® E-FLOORING COMPOUND LT

DESCRIPTION

REZKLAD E-FLOORING COMPOUND is a trowel applied epoxy resin topping installed at thicknesses of 3/16" (4.8 mm.) to 1/4" (6.4 mm.).

TYPICAL USES

REZKLAD E-FLOORING COMPOUND is a high-quality epoxy floor topping that provides excellent chemical resistance with outstanding physical properties. The physical strength, abrasion resistance and finished appearance of REZKLAD E-FLOORING COMPOUND make it an excellent flooring system for chemical and food process areas, animal holding areas, mechanical equipment rooms and warehouses. REZKLAD E-FLOORING COMPOUND is certifiable for use in USDA inspected facilities.

CHEMICAL RESISTANCE

REZKLAD E-FLOORING COMPOUND is resistant to splash and spills of many non-oxidizing acids, alkalis, salts, oils, greases and food chemicals. Refer to the chemical resistance chart for specific information.

METHOD OF INSTALLATION

REZKLAD E-FLOORING system consists of a brush or roller applied REZKLAD E-CONCRETE PRIMER, the trowel applied REZKLAD E-FLOORING COMPOUND and a roller or squeegee applied REZKLAD E-HI BUILD 90 topcoat sealer. For packaging, mixing and application of REZKLAD E-HI BUILD 90 as a topcoat or slip resistant surface, refer to Data Sheet 7-601PI.

AVAILABLE COLORS

Standard colors are gray, red and tan.

PACKAGING AND COVERAGE

REZKLAD E-CONCRETE PRIMER

1/2-Gallon Unit (3 lb. 7 oz. [1.6 kg.]) Consisting of:

One - 1/2-gal. can of Resin (2 lb. 8 oz. [1.1 kg.])

One - 1-pt. can of Hardener (15 oz. [425 g.])

Coverage: Approx. 100 sq. ft. (9.3 m²) per unit

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ASTM C905	127 lb./cu. ft. (2.03 g./cc.)
Bond Strength, 7 days @ 77°F (25°C)		Concrete 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	11,000 psi. (75.8 MPa)
Flexural Strength, 7 days @ 77°F (25°C)	ASTM C580	4,070 psi. (28.1 MPa)
Flexural Modulus of Elasticity	ASTM C580	1.5 x 10 ⁶ psi. (10,300 MPa)
Coefficient of Thermal Exp., in./in./°F (cm./cm./°C)	ASTM C531	2.30 x 10 ⁻⁵ (4.14 x 10 ⁻⁵)
Water Absorption	ASTM C413	0.1%
Temperature Resistance Continual Intermittent		140°F (60°C) 212°F (100°C)
Linear Shrinkage	ASTM C531	< 0.05%
Hardness, Shore D-2		80-90
Abrasion Resistance, Taber CS-17 wh., 1 kg., 1,000 cyc.	ASTM C501	70 mg. weight loss
Flammability Extent of Burn	ASTM D635	Self-extinguishing 11 mm.
Impact Resistance, 1/4" (6.4 mm.) thick, unbonded	Gardner Tester	26 in. lb.

1-1/2-Gal. Unit (12 lb. 2 oz. [5.5 kg.]) Consisting of:

One - 1-gal. can of Resin (9 lb. [4.1 kg.])

One - 1/2-gal. can of Hardener (3 lb. 2 oz. [1.4 kg.])

Coverage: Approx. 350 sq. ft. (32.5 m²) per unit

REZKLAD E-FLOORING COMPOUND

44 lb. 4 oz. (20.1 kg.) Unit Consisting of:

One - 1-gal. can of Resin (5 lb. 2 oz. [2.3 kg.])

One - 1-pt. can of Hardener (10 oz. [284 g.])

One - bag of Powder (38 lb. 8 oz. [17.5 kg.])

Coverage: Approx. 22 sq. ft. (2.0 m²) per unit @ 3/16" (4.8 mm.) thickness

Coverage: Approx. 17 sq. ft. (1.6 m²) per unit @ 1/4" (6.4 mm.) thickness

REZKLAD E-HI BUILD 90

As a topcoat or slip resistant surface, refer to Data Sheet 7-601PI for packaging, mixing and application over epoxy monolithic floor topping.

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.

ATLAS® AGGREGATE No. 8

One - bag (100 lb. [45.4 kg.])

Coverage: Approx. 2,000 sq. ft. (186 m²) per bag when used in primer

SURFACE PREPARATION

REZKLAD E-FLOORING COMPOUND Systems are designed to be applied to concrete substrates. 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.

Concrete: Finished concrete must be free of ridges, protrusions, fins, mortar splatter and have a tight, laitance-free steel trowel finish. Abrasive grit blasting is recommended. Where impractical, chemical preparation by acid washing is acceptable. A finish similar to the profile of 100 to 120 grit sandpaper is suggested. For additional information, refer to Surface Preparation, Data Sheet PS-30.

TEMPERATURE & CONDITIONS DURING APPLICATION

Store REZKLAD E-FLOORING COMPOUND, REZKLAD E-HI BUILD 90 and REZKLAD E-CONCRETE PRIMER at 70°F (21°C) to 80°F (27°C) for 24 hours prior to use. The best working characteristics of the materials will be attained when the temperature of the substrate, air and REZKLAD E-FLOORING COMPOUND are between 60°F (16°C) and 85°F (29°C). Minimum temperature for installation is 60°F (16°C).

Use REZKLAD E-FLOORING COMPOUND LT and REZKLAD E-CONCRETE PRIMER LT for installations where substrate and air temperatures are between 34°F (1°C) and 60°F (16°C). Store at 70°F (21°C) to 80°F (27°C) for 24 hours prior to use. They can also be used as a rapid setting system when temperatures are between 60°F (16°C) and 70°F (21°C).

Do not apply REZKLAD E-FLOORING COMPOUND Systems to substrates that flex. Do not apply primer, topping or topcoat(s) when relative humidity is greater than 75%. Protect uncured primer, topping and topcoat(s) from moisture contamination until they can support foot traffic.

MIXING AND APPLICATION OF THE REZKLAD E-CONCRETE PRIMER

Stir the contents of the individual resin and hardener containers prior to blending. Mixing of the components should be done with a hand drill equipped with a "Jiffy" type mixer at a mixing speed between 300 and 500 RPM.

- Combine the contents of the cans of REZKLAD E-CONCRETE PRIMER Resin and Hardener in a suitable mixing container. Mix thoroughly for one minute.
- Apply REZKLAD E-CONCRETE PRIMER with a brush or roller making sure to work it into the pores of the concrete. Do not allow puddling. Broadcast

ATLAS AGGREGATE No. 8 into the wet primer at a rate of 1 lb. (454 g.) per 20 sq. ft. (1.9 m²).

- For optimum adhesion, apply REZKLAD E-FLOORING COMPOUND when the primer is wet or tacky. If the primer is allowed to dry for longer than then 24 hours, the surface must be sanded and the area reprimed before proceeding.

TYPICAL WORKING TIMES OF THE REZKLAD E-CONCRETE PRIMER

Temperature	Working Time
65°F (18°C)	35 min.
75°F (24°C)	25 min.
85°F (29°C)	15 min.

MIXING OF THE REZKLAD E-FLOORING COMPOUND SYSTEMS

Stir the contents of the individual resin and hardener containers prior to blending. Mixing of the components should be with a KOL type mixer with a 5-gallon capacity. The mixing speed should be between 60 and 75 RPM.

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

REZKLAD E-FLOORING COMPOUND**44 lb. 4 oz. (20.1 kg.) Unit:**

- Combine the contents of the 5 lb. 2 oz. (2.3 kg.) can of REZKLAD E-FLOORING COMPOUND Resin with the 10 oz. (284 g.) can of REZKLAD E-FLOORING COMPOUND Hardener in the 5-gallon capacity mechanical mixer. Mix thoroughly for approximately two minutes.
- Slowly add the 38 lb. 8 oz. (17.5 kg.) bag of REZKLAD E-POWDER.
- Mix the combined components for approximately two minutes or until all the powder is thoroughly dispersed.

APPLICATION OF THE REZKLAD E-FLOORING COMPOUND

- Place freshly mixed REZKLAD E-FLOORING COMPOUND on the properly prepared and primed substrate.
- Screed the REZKLAD E-FLOORING COMPOUND to uniform thickness with a trowel, rake, screed bar or screed box.
- Compact and smooth the surface with a concrete finishing trowel.
- Allow the REZKLAD E-FLOORING COMPOUND to harden sufficiently to support foot traffic.
- Apply a topcoat or slip resistant surface of REZKLAD E-HI BUILD 90 or alternate topcoat system as recommended by ATLAS. For packaging, mixing and application, refer to REZKLAD E-HI BUILD 90 Data Sheet, 7-601PI.

MIX RATIO CHART - REZKLAD E-FLOORING COMPOUND

REZKLAD E-FLOORING COMPOUND	Weight	Volume
REZKLAD E-FLOORING COMPOUND Resin	5 lb. 2 oz. (2.3 kg.)	71 fl. oz. (2.1 liters)
REZKLAD E-FLOORING COMPOUND Hardener	10 oz. (284 g.)	9 fl. oz. (0.27 liters)
REZKLAD E-POWDER	38 lb. 8 oz. (17.5 kg.)	38 lb. 8 oz. (17.5 kg.)
Batch Size	44 lb. 4 oz. (20.1 kg.)	0.35 cu. ft. (10.5 liters)

TYPICAL SETTING TIMES OF THE REZKLAD E-FLOORING COMPOUND

Temperature	Working Time	Support Foot Traffic
65°F (18°C)	45 minutes	24 hours
75°F (24°C)	35 minutes	16 hours
85°F (29°C)	25 minutes	10 hours

REZKLAD E-FLOORING COMPOUND LT SYSTEM
The system consists of REZKLAD E-CONCRETE PRIMER LT, REZKLAD E-FLOORING COMPOUND LT and a topcoat of REZKLAD E-FLOORING COMPOUND Resin and LT Hardener.

Use REZKLAD E-FLOORING COMPOUND LT and REZKLAD E-CONCRETE PRIMER LT for installations where the substrate and air temperatures are between 34°F (1°C) and 60°F (16°C). Store at 70°F (21°C) to 80°F (27°C) for 24 hours prior to use. REZKLAD E-FLOORING COMPOUND LT can also be used as a rapid setting system when temperatures are between 60°F (16°C) and 70°F (21°C).

PACKAGING AND COVERAGE**REZKLAD E-CONCRETE PRIMER LT****1/2-Gallon Unit (3 lb. 12 oz. [1.7 kg.]) Consisting of:**

One - 1/2-gal. can of Resin (2 lb. 8 oz. [1.1 kg.])
One - 1-qt. can of LT Hardener (1 lb. 4 oz. [567 g.])
Coverage: Approx. 100 sq. ft. (9.3 m²) per unit

1-1/2-Gallon Unit (13 lb. 8 oz. [6.1 kg.]) Consisting of:

One - 1-gal. can of Resin (9 lb. [4.1 kg.])
One - 1-gal. can of LT Hardener (4 lb. 8 oz. [2.0 kg.])
Coverage: Approx. 350 sq. ft. (32.5 m²) per unit

REZKLAD E-FLOORING COMPOUND LT**44 lb. 1 oz. (19.9 kg.) Unit Consisting of:**

One - 1-gal. can of Resin (3 lb. 13 oz. [1.7 kg.])
One - 1-qt. can of LT Hardener (1 lb. 12 oz. [794 g.])
One - bag of Powder (38 lb. 8 oz. [17.5 kg.])
Coverage: Approx. 21 sq. ft. (2.0 m²) per unit @ 3/16" (4.8 mm.) thickness; Approx. 16 sq. ft. (1.5 m²) per unit @ 1/4" (6.4 mm.) thickness

MIXING AND APPLICATION OF THE REZKLAD E-CONCRETE PRIMER LT

Surface preparation, mixing and application of the REZKLAD E-CONCRETE PRIMER LT are the same as REZKLAD E-CONCRETE PRIMER.

TYPICAL WORKING TIMES OF THE REZKLAD E-CONCRETE PRIMER LT

Temperature	Working Time
34°F (1°C)	35 min.
40°F (4°C)	25 min.
50°F (10°C)	20 min.
60°F (16°C)	15 min.

MIXING AND APPLICATION OF THE REZKLAD E-FLOORING COMPOUND LT**44 lb. 1 oz. (19.9 kg.) Unit:**

- Combine the contents of the 3 lb. 13 oz. (1.7 kg.) can of REZKLAD E-FLOORING COMPOUND Resin with the 1 lb. 12 oz. (794 g.) can of REZKLAD E-FLOORING COMPOUND LT Hardener in the 5-gallon capacity mechanical mixer. Mix thoroughly for approximately two minutes.
- Slowly add the 38 lb. 8 oz. (17.5 kg.) bag of REZKLAD E-POWDER.
- Mix the combined components for approximately two minutes or until all the powder is thoroughly dispersed.
- Apply the REZKLAD E-FLOORING COMPOUND LT as previously described in "Application of the REZKLAD E-FLOORING COMPOUND" Steps (a.) through (d.).
- Apply a topcoat or slip resistant surface of REZKLAD E-HI BUILD 90 LT or alternate topcoat system as recommended by ATLAS. For packaging, mixing and application, refer to REZKLAD E-HI BUILD 90 Data Sheet, 7-601PI.

TYPICAL SETTING TIMES OF THE REZKLAD E-FLOORING COMPOUND LT

Temperature	Working Time	Support Foot Traffic
34°F (1°C)	45 minutes	24 hours
40°F (4°C)	35 minutes	24 hours
50°F (10°C)	25 minutes	16 hours
60°F (16°C)	20 minutes	12 hours
70°F (21°C)	15 minutes	8 hours

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 if the material

has begun to harden. Fully hardened material will have to be removed by mechanical means.

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 E-FLOORING COMPOUND or REZKLAD E-FLOORING COMPOUND LT as manufactured by Atlas Minerals & Chemicals, Inc. The flooring system shall be certifiable for use in USDA inspected facilities.

The system shall consist of:

- REZKLAD E-CONCRETE PRIMER, brush or roller applied
- REZKLAD E-FLOORING COMPOUND, 3/16" to 1/4" trowel applied
- Topcoat, roller or squeegee applied

PRECAUTIONS

Contact with certain concentrated acids may cause the surface of REZKLAD E-FLOORING COMPOUND to change color. This color change will not affect the chemical resistance.

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® E-FLOORING COMPOUND / REZKLAD® E-FLOORING COMPOUND LT (3-103PI)

Acetic Acid, to 5%	E
Acetic Acid, 5% to 10%	G
Acetic Acid, 10% to 50%	C
Acetone	C
Alum or Aluminum Sulfate	E
Ammonium Chloride, Nitrate, Sulfate	E
Ammonium Hydroxide, to 30%	E
Aniline	N
Animal Oils	C
Bakery Products	G
Barium Chloride, Sulfate	E
Beer	E
Benzene	C
Benzene Sulfonic Acid, 10%	E
Benzoic Acid	E
Black Liquor	E
Boric Acid	E
Bromine Water	C
Butter	C
Butyl Acetate	C
Butyl Alcohol	E
Butyric Acid	C
Calcium Chloride, Nitrate, Sulfate	E
Calcium Hydroxide	E
Calcium Hypochlorite	G
Carbonated Water	E
Casein	G
Cheese, all	G
Chlorine, Dry	F
Chlorine, Wet	F
Chlorine Water	E
Chloroacetic Acid, to 10%	C
Chloroform	C
Chromic Acid, to 5%	G
Chromic Acid, 5% to 10%	C
Cider	F
Citric Acid, to 10%	E
Citrus Fruits	G
Coffee	E
Copper Chloride, Nitrate, Sulfate	E
Corn Oil	G
Corn Syrup	G
Egg Yolk	E
Ethyl Acetate	C
Ethyl Alcohol	E
Ethyl Ether	G
Ethylene Dichloride	N
Ethylene Glycol	E
Fatty Acids	C

Ferric Chloride, Nitrate, Sulfate	E
Fluosilicic Acid	C
Formaldehyde	E
Formic Acid, 10%	G
Fruit Extracts	G
Fruit Juices	G
Gasoline	E
Glucose	F
Glycerine	G
Grape Juice	G
Horse Radish	E
Hydrobromic Acid, to 20%	E
Hydrochloric Acid, to 20%	E
Hydrochloric Acid, 20% to 37%	G
Hydrofluoric Acid, to 20%	C
Hydrofluoric Acid, 20% to 70%	N
Hydrofluosilicic Acid	C
Hydrogen Peroxide	E
Hypochlorous Acid, to 5%	G
Ice Cream	E
Jams & Jellies	F
Jet Fuel	E
Kerosene	E
Ketchup	G
Lactic Acid, to 5%	G
Lactic Acid, 5% to 10%	F
Lactic Acid, above 10%	C
Lard	C
Linseed Oil	F
Lux Liquid	E
Magnesium Chloride, Nitrate, Sulfate	E
Magnesium Hydroxide	E
Maleic Acid, 25%	C
Malt	G
Malt Liquors	G
Margarine	C
Methyl Alcohol	E
Methyl Ethyl Ketone	N
Methylene Chloride	N
Milk	E
Mineral Oil	E
Mineral Spirits	E
Molasses	F
Muriatic Acid	G
Mustard	G
Nickel Chloride, Nitrate, Sulfate	E
Nitric Acid, to 5%	F
Nitric Acid, 5% to 10%	C
Oleic Acid	C

Olive Oil	C
Oxalic Acid	E
Pectin	E
Perchloroethylene	C
Petroleum	E
Phenol, to 5%	C
Phosphoric Acid, to 25%	E
Phosphoric Acid, 25% to 50%	G
Phosphoric Acid, above 50%	C
Pickles	E
Picric Acid, to 5%	E
Potassium Bicarbonate, Carbonate	E
Potassium Chloride, Nitrate, Sulfate	E
Potassium Hydroxide, to 25%	E
Potassium Hydroxide, 25% to 50%	G
Salad Oils	C
Salicylic Acid	G
Shortening	C
Silver Nitrate	G
Skydrol	E
Smokehouse Residues	F
Sodium Bicarbonate, Carbonate	E
Sodium Bisulfate, Sulfate	E
Sodium Chloride, Nitrate, Phosphate	E
Sodium Hydroxide, to 25%	E
Sodium Hydroxide, 25% to 50%	G
Sodium Hypochlorite	F
Sodium Sulfide, Sulfite	G
Sodium Thiosulfate	E
Soft Drink Concentrates	C
Soft Drinks	G
Soups	E
Soya Oil	C
Stearic Acid	E
Sugar, Saturated Solution	F
Sulfuric Acid, to 50%	E
Sulfuric Acid, above 50%	C
Sulfurous Acid	E
Syrup	C
Tannic Acid	E
Tartaric Acid	E
Tea	E
Toluene	F
Toluene Sulfonic Acid	G
Tomato Juice	E
Trichloroethylene	C
Trisodium Phosphate	E
Tung Oil	F
Turpentine	G

Urea	E
Urine	E
Vegetable Oil	C
Vinegar	E
Water, Distilled	E
Water, Fresh	E
Water and Sewage	E
Wine	G
Xylene	F
Yeast	E
Zinc Chloride, Nitrate, Sulfate	E

(1-14)

KEY

E - Excellent
 G - Good
 F - Fair
 N - Not Recommended
 C - Conditional; May be serviceable if the contaminant is immediately removed or washed off the surface.

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 E-FLOORING COMPOUND / REZKLAD E-FLOORING COMPOUND LT 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. 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.