



Atlas Minerals & Chemicals, Inc.



# DATA SHEET

8-115PI (8-00)

Supersedes 8-115PI (8-98)

## REZKLAD E-FS ADDITIVE

### DESCRIPTION

REZKLAD E-FS ADDITIVE is an epoxy resin polymer modifier for Portland Cement concrete. It provides an easy-to-mix-and-place, structurally sound Portland Cement concrete that cures quickly, permitting application of resin based polymer toppings, coatings and chemical resistant tile or paver systems with as little as 24 to 48 hours curing time. The system consists of:

### REZKLAD E-FS PRIMER:

A three-component brush or roller applied primer.

### REZKLAD E-FS ADDITIVE:

A two-component liquid concrete additive.

### TYPICAL USES

REZKLAD E-FS ADDITIVE is ideal for use in concrete repair applications, as well as to adjust elevations. Compressive strengths approaching 1,000 psi. (6.89 MPa) are attained in 24 hours, 3,000 psi. (20.7 MPa) in 48 hours and more than 5,000 psi. (34.5 MPa) after seven days. REZKLAD E-FS ADDITIVE allows the use of concrete overlays as thin as 1" (25.4 mm.) when resloping or upgrading existing concrete floors.

### PACKAGING AND COVERAGE

#### REZKLAD E-FS PRIMER

##### 13 lb. 3 oz. (6.0 kg.) Unit Consisting of:

One - 1-Gal. can of Resin (9 lb. 10 oz. [4.4 kg.])

One - 1/2-Gal. can of Hardener (3 lb. 8 oz. [1.6 kg.])

One - bag of Polyethylene Fiber (43 g.)

Coverage: Approx. 170 sq. ft. (15.8 m<sup>2</sup>) per unit

#### REZKLAD E-FS ADDITIVE

##### 48 lb. 10 oz. (22.1 kg.) Unit Consisting of:

One - 5-Gal. pail of Resin (42 lb. [19.1 kg.])

One - 1-Gal. can of Hardener (6 lb. 10 oz. [3.0 kg.])

Coverage: One unit will prepare approximately 10 cu. ft. (0.3 m<sup>3</sup>) of modified concrete

### SURFACE PREPARATION

**Existing Concrete:** Abrasive grit blasting is recommended. Where abrasive grit blasting is impractical, chemical preparation is acceptable. The concrete substrate must be structurally sound and clean.

**New Concrete:** When installing REZKLAD E-FS modified concrete as a new substrate, follow standard concrete construction practices.

For additional information, refer to Surface Preparation, Data Sheet PS-30.

### MIXING AND APPLICATION OF THE REZKLAD E-FS PRIMER

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. Hand mixing is not recommended.

- In a suitable mixing container, add the REZKLAD E-FS PRIMER Hardener (3 lb. 8 oz. [1.6 kg.]) to the REZKLAD E-FS PRIMER Resin (9 lb. 10 oz. [4.4 kg.]). Mix for approximately two minutes.
- Add the 43 gram bag of Polyethylene Fiber and mix until uniform.
- Add one gallon of water and mix until the polyethylene fibers are thoroughly wetted and the mixture is homogeneous.
- Apply the primer to concrete and reinforcing steel by brush or roller. Do not allow puddling. The modified Portland Cement concrete must be placed over the primed surface within 30 minutes after priming. If the primer is allowed to dry up to 24 hours, reprime. After 24 hours, sand and reprime.

### MIXING AND APPLICATION OF THE REZKLAD E-FS ADDITIVE

- Add the REZKLAD E-FS ADDITIVE Resin and Hardener to the concrete mixer in the amounts listed in "Typical Batching".
- Apply the thoroughly mixed modified concrete on to the primed surface within 30 minutes of priming.
- Remove the material from the mixer, place and finish as for conventional Portland Cement concrete. Sprinkle the surface with water and trowel to a smooth finish. Use a minimum amount of water to finish the concrete. Approximate mixing, placing and finishing time is one hour. Do not place material at temperatures below 60°F (16°C) or above 90°F (32°C).
- When installing vinyl ester or polyester based products over REZKLAD E-FS, a barrier coat of REZKLAD A-PRIMER must first be applied to the modified concrete surface.

### The order of mixing is:

- Add aggregate and cement to the mixer. Blend.

**TYPICAL BATCHING\***

<b>MATERIAL</b>	<b>10 cu. ft. (0.3 m<sup>3</sup>)</b>	<b>1 cu. yd. (0.8 m<sup>3</sup>)</b>
Portland Cement (Type I or III)	2-2/3 bags	7 bags
3/8" Pea Gravel	676 lb. (306.6 kg.)	1,825 lb. (827.8 kg.)
Concrete Sand	432 lb. (196.0 kg.)	1,165 lb. (528.4 kg.)
Water	11-1/2 gal. (44 liters)	31 gal. (117 liters)
REZKLAD E-FS ADDITIVE Resin	42 lb. (19.1 kg.)	113 lb. (51.3 kg.)
REZKLAD E-FS ADDITIVE Hardener	6 lb. 10 oz. (3.0 kg.)	18 lb. (8.2 kg.)

\*REZKLAD E-FS ADDITIVE is added to Portland Cement concrete and mixed using conventional concrete mixing equipment. For large installations, REZKLAD E-FS ADDITIVE can be added and mixed in the concrete ready-mix truck.

2. Add 3/4 of the water and mix until uniform.
3. Add the hardener and mix until uniform.
4. Add the resin and mix until uniform.
5. Add the remaining water and mix until uniform. The amount of water may be adjusted to the required consistency for application. A three to four inch slump is usually adequate for most installations.

All concrete mixes must be made with Type I or Type III non-air entraining Portland Cement. Concrete additives of any type are not recommended for polymer modified concrete made with REZKLAD E-FS ADDITIVE.

**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 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.

**LIMITATIONS**

Do not place material at temperatures below 65°F (18°C) or above 90°F (32°C). Substrate temperature should be between 65°F and 85°F (18°C and 29°C). Use only clean, drinkable water for concrete mixing.

**MAINTENANCE**

**Cleaning:** Clean using commercially available institutional or industrial cleaners. DO NOT use sustained steam or high-temperature solutions or cleaners that contain solvents.

**Repair:** Should the modified concrete be damaged by

severe physical abuse, it can be repaired by thoroughly cleaning and reapplying the REZKLAD E-FS ADDITIVE SYSTEM.

**PRODUCT SPECIFICATION**

The system shall be REZKLAD E-FS ADDITIVE as manufactured by Atlas Minerals & Chemicals, Inc. The manufacturer shall be ISO 9001 registered for the manufacture and sale of corrosion resistant products.

**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.

**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.**