Atlas Minerals & Chemicals, Inc.

DATA SHEET

3-401DS (6-03²)
Supersedes 3-401DS (1-98)

REZKLAD® VE-375

DESCRIPTION
REZKLAD VE-375 is a corrosion resistant, novolac vinyl ester resin broadcast floor topping applied in thicknesses of 1/8" (3.2 mm.) to 3/8" (9.5 mm.).

TYPICAL USES
REZKLAD VE-375 is resistant to a broad range of acids, alkalies and solvents with outstanding resistance to bleach solutions, such as chlorine dioxide, sodium hypochlorite and hydrogen peroxide. It resists oxidizing acids, such as nitric and chromic, as well as clean-in-place (CIP) chemicals and sanitizing agents. The outstanding chemical resistance of REZKLAD VE-375 makes it an ideal choice for application in the pharmaceutical, pulp and paper, circuit board etching, dairy and food and beverage industries. It is an excellent wear resistant topping for indoor and outdoor applications. REZKLAD VE-375 will resist normal wash down and process temperatures to 190°F (88°C). REZKLAD VE-375 is certifiable for use in USDA inspected facilities.

PACKAGING AND COVERAGE
REZKLAD VE-PRIMER
1-Gallon Unit (8 lb. 3 oz. [3.7 kg.]) Consisting of:
One - 1-gal. can of Resin (8 lb. [3.6 kg.])
One - bottle of Hardener (73 grams)
Coverage: Approx. 200 sq. ft. (18.6 m²) per unit

REZKLAD VE-BINDER
5-Gallon Unit (42 lb. 2 oz. [19.1 kg.]) Consisting of:
One - 5-gal. pail of Resin (41 lb. 8 oz. [18.8 kg.])
One - bottle of Hardener (10 oz. [284 g.])
Coverage: Approx. 100 sq. ft. (9.3 m²) per unit per three coat system @ 1/4" (6.4 mm.) thickness
First Coat--441 sq. ft. (41.0 m²) per unit
Second Coat--258 sq. ft. (24.0 m²) per unit
Third Coat--258 sq. ft. (24.0 m²) per unit

REZKLAD VE-SURFACER
1-Gallon Unit (7 lb. 14.9 oz. [3.6 kg.]) Consisting of:
One - 1-gal. can of Resin (7 lb. 13 oz. [3.5 kg.])
One - bottle of Hardener (54 grams)
Coverage: Approx. 71 sq. ft. (6.6 m²) per unit per two coat system
First Coat--83 sq. ft. (7.7 m²) per unit
Second Coat--201 sq. ft. (18.7 m²) per unit

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ASTM C905	123 lb./cu. ft. (1.97 g./cc.)
Bond Strength, 7 days @ 77°F (25°C)		Concrete fails
Tensile Strength, 7 days @ 77°F (25°C)	ASTM C307	1,200 psi. (8.27 MPa)
Compressive Strength, 7 days @ 77°F (25°C)	ASTM C579	7,000 psi. (48.3 MPa)
Flexural Strength, 7 days @ 77°F (25°C)	ASTM C580	2,500 psi. (17.2 MPa)
Flexural Modulus of Elasticity	ASTM C580	1.1 x 10^6 psi. (7,600 MPa)
Coefficient of Thermal Exp., in./in./°F (cm./cm./°C)	ASTM C531	2.1 x 10^{-5} (3.8 x 10^{-5})
Water Absorption	ASTM C413	0.5%
Temperature Resistance Continual Intermittent		160°F (71°C) 190°F (88°C)
Linear Shrinkage	ASTM C531	0.3%
Hardness, Shore D-2		85-90
Abrasion Resistance, Taber CS-17 wh., 1 kg., 1,000 cyc.	ASTM C501	160 mg. weight loss
Flammability Extent of Burn	ASTM D635	Self-extinguishing 22 mm.
Impact Resistance, 1/4" (6.4 mm.) thick, unbonded	Gardner Tester	40 in. lb.
Heat Deflection Temperature	ASTM D648	147°F (64°C)
Cure Rate @ 77°F (25°C)		2 to 4 hours for foot traffic, 16 hours for lt. wheeled traffic, 48 hours for heavy traffic, 7 days for maximum chemical resistance

5-Gallon Unit (43 lb. 2 oz. [19.6 kg.]) Consisting of:
One - 5-gal. pail of Resin (42 lb. 8 oz. [19.3 kg.])
One - bottle of Hardener (10 oz. [284 g.])
Coverage: Approx. 378 sq. ft. (35.2 m²) per unit per two coat system
First Coat--441 sq. ft. (41.0 m²) per unit
Second Coat--1,072 sq. ft. (99.6 m²) per unit

ATLAS® AGGREGATE No. 6
One - bag (100 lb. [45.4 kg.])
Coverage: Approx. 113 sq. ft. (10.5 m²) per bag per two broadcast applications

1227 Valley Road, PO Box 38 ● Mertztown, PA 19539-0038 ● 800-523-8269 ● 610-682-7171 **FAX** 610-682-9200 **E-MAIL** sales@atlasmin.com

www.atlasmin.com

ATLAS AGGREGATE No. 8
One - bag (100 lb. [45.4 kg.])
Coverage: Approx. 198 sq. ft. (18.4 m^2) per bag as final broadcast

EMERY or GARNET #36 GRIT
One - bag (100 lb. [45.4 kg.])
Coverage: Approx. 165 sq. ft. (15.3 m^2) per bag as final broadcast

SUBSTRATE
REZKLAD VE-375 is designed to be applied to new or existing concrete surfaces.

OPTIONS
Colors: Standard colors are gray and red.

Cove Base: Use REZKLAD VE-SURFACER.

Finishes: Apply REZKLAD VE-SURFACER with or without ATLAS AGGREGATE, garnet, emery or aluminum oxide to meet finish requirements.

SURFACE PREPARATION
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: The prepared concrete substrate shall have a minimum tensile strength of 250 psi. (1.72 MPa). Concrete surface must be sufficiently cured and comply with moisture testing as prescribed by ACI Test Method 515 R-16 “Dryness of Surface”. Concrete surfaces should be grit blasted to a finish similar to the profile of 100 to 120 grit sandpaper. Cracks in the concrete substrate 1/16" (1.6 mm.) wide or greater must be opened to a minimum 1/4" (6.4 cm.) cleaned, primed and filled with ChemPruf 2410.
Carbon Steel: Metal surfaces should be grit blasted to a SSPC-SP5 or NACE #1 white metal blast cleaned surface finish. Profile height must be 3 (0.076 mm.) to 4 mils (0.102 mm.).
For additional information, refer to Surface Preparation, Data Sheet PS-30.

APPLICATION
1. Apply REZKLAD VE-PRIMER with a brush or roller.
2. Lightly broadcast ATLAS AGGREGATE No. 6 into wet primer and allow to dry.
3. Pour the REZKLAD VE-BINDER onto the primed surface and spread uniformly using a notched rubber squeegee or notched steel trowel. Uniformly broadcast ATLAS AGGREGATE No. 6 in excess into wet REZKLAD VE-BINDER and allow to cure.
4. Remove unbonded aggregate by sweeping or vacuuming.
5. Apply a second coat of REZKLAD VE-BINDER spreading uniformly with a smooth rubber squeegee. Uniformly broadcast ATLAS AGGREGATE No. 6 in excess into wet REZKLAD VE-BINDER and allow to cure.
6. Remove unbonded aggregate by sweeping or vacuuming.
7. Apply a third coat of REZKLAD VE-BINDER spreading uniformly with a smooth rubber squeegee.
8. Uniformly broadcast ATLAS AGGREGATE No. 8 in excess into wet REZKLAD VE-BINDER and allow to cure. Remove unbonded aggregate by sweeping or vacuuming.
9. Apply first coat of REZKLAD VE-SURFACER with a smooth rubber squeegee and allow to dry tack-free. Apply a second coat of REZKLAD VE-SURFACER using a medium nap roller.

LIMITATIONS
Substrate temperature range for application is between 60°F (16° C) to 85°F (29°C). Do not apply when relative humidity is greater than 75%. **Odors from uncured materials may contaminate certain products or be offensive to personnel.** Removal of these products may be necessary during the installation and cure. Evacuate odors to exterior environment and restrict odors from circulating throughout the building.

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 topping be damaged by severe physical abuse, it can be repaired by thoroughly cleaning and reapplying the REZKLAD VE-375 SYSTEM.

PRODUCT SPECIFICATION
The system shall be REZKLAD VE-375 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.

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® VE-375 (3-401DS)

Acetic Acid, to 10%	E
Acetic Acid, 10% to 50%	E
Acetone	C
Alum or Aluminum Sulfate	E
Ammonium Chloride, Nitrate, Sulfate	E
Ammonium Hydroxide, to 10%	E
Ammonium Hydroxide, 10% to 30%	G
Aniline	C
Animal Oils	E
Bakery Products	E
Barium Chloride, Sulfate	E
Beer	E
Benzene	C
Benzene Sulfonic Acid, 10%	E
Benzoic Acid	E
Black Liquor	E
Boric Acid	E
Bromine Water	G
Butter	E
Butyl Acetate	G
Butyl Alcohol	G
Butyric Acid	E
Calcium Chloride, Nitrate, Sulfate	E
Calcium Hydroxide	E
Calcium Hypochlorite	E
Carbonated Water	E
Casein	E
Cheese, all	E
Chlorine, Dry	E
Chlorine, Wet	E
Chlorine Water	E
Chloroacetic Acid, to 10%	E
Chloroform	N
Chromic Acid, to 10%	E
Cider	E
Citric Acid, to 10%	E
Citrus Fruits	E
Coffee	E
Copper Chloride, Nitrate, Sulfate	E
Corn Oil	E
Corn Syrup	E
Egg Yolk	E
Ethyl Acetate	C
Ethyl Alcohol	E
Ethyl Ether	N
Ethylene Dichloride	C
Ethylene Glycol	E
Fatty Acids	E
Ferric Chloride, Nitrate, Sulfate	E
Fluosilicic Acid	C
Formaldehyde	E
Formic Acid, 10%	E
Fruit Extracts	E
Fruit Juices	E
Gasoline	E
Glucose	E
Glycerine	E
Grape Juice	E
Horse Radish	E
Hydrobromic Acid, to 20%	G
Hydrochloric Acid, to 20%	E
Hydrochloric Acid, 20% to 37%	G
Hydrofluoric Acid, to 20%	G
Hydrofluosilicic Acid, to 35%	C
Hydrogen Peroxide, to 35%	E
Hypochlorous Acid, to 20%	E
Ice Cream	E
Jams & Jellies	E
Jet Fuel	E
Kerosene	E
Ketchup	E
Lactic Acid	E
Lard	E
Linseed Oil	E
Lux Liquid	E
Magnesium Chloride, Nitrate, Sulfate	E
Magnesium Hydroxide	E
Maleic Acid, 25%	E
Malt	E
Malt Liquors	E
Margarine	E
Methyl Alcohol	E
Methyl Ethyl Ketone	C
Methylene Chloride	C
Milk	E
Mineral Oil	E
Mineral Spirits	E
Molasses	E
Muriatic Acid	E
Mustard	E
Nickel Chloride, Nitrate, Sulfate	E
Nitric Acid, to 10%	E
Oleic Acid	E
Olive Oil	E
Oxalic Acid	E
Pectin	E
Perchloroethylene	C
Petroleum	E
Phenol, to 5%	E
Phosphoric Acid	E
Pickles	E
Picric Acid, to 5%	E
Potassium Bicarbonate, Carbonate	E
Potassium Chloride, Nitrate, Sulfate	E
Potassium Hydroxide, to 50%	G
Salad Oils	E
Salicylic Acid	E
Shortening	E
Silver Nitrate	E
Skydrol	E
Smokehouse Residues	G
Sodium Bicarbonate, Carbonate	E
Sodium Bisulfate, Sulfate	E
Sodium Chloride, Nitrate, Phosphate	E
Sodium Hydroxide, to 50%	G
Sodium Hypochlorite	E
Sodium Sulfide, Sulfite	E
Sodium Thiosulfate	E
Soft Drink Concentrates	E
Soft Drinks	E
Soups	E
Soya Oil	E
Stearic Acid	E
Sugar, Saturated Solution	E
Sulfuric Acid, to 70%	E
Sulfuric Acid, above 70%	F
Sulfurous Acid	E
Syrup	E
Tannic Acid	E
Tartaric Acid	E
Tea	E
Toluene	G
Toluene Sulfonic Acid	E
Tomato Juice	E
Trichloroethylene	N
Trisodium Phosphate	E
Tung Oil	E
Turpentine	E
Urea	E
Urine	E
Vegetable Oil	E
Vinegar	E
Water, Distilled	E
Water, Fresh	E
Water and Sewage	E
Wine	E
Xylene	G
Yeast	E
Zinc Chloride, Nitrate, Sulfate	E

(6-03[2])

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 VE-375 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.