



Atlas Minerals & Chemicals, Inc.



# DATA SHEET

5-39PI (8-02)

Supersedes T-5-39PI (8-02)

## FURATHANE WATER-CLEANABLE MORTAR

### DESCRIPTION

FURATHANE WATER-CLEANABLE MORTAR is a furan resin mortar designed for **re-grouting** of existing tile and brick floor joints. It is compatible with epoxy, vinyl ester, polyester, phenolic and furan resin grouts or mortars and conventional or latex modified sand cement grouts or mortars.

### CHEMICAL RESISTANCE

FURATHANE WATER-CLEANABLE MORTAR is resistant to food and food by-products, organic acids, solvents, oils, greases and salts. It is also resistant to many inorganic acids and alkalis including hydrofluoric acid, phosphoric acid and sodium hydroxide. Refer to the chemical resistance chart for specific information. FURATHANE WATER-CLEANABLE MORTAR complies with the specifications of ASTM C395 and ANSI A118.5 for chemical resistant furan resin mortars.

### AVAILABLE COLORS

FURATHANE WATER-CLEANABLE MORTAR is available in black only.

### PACKAGING

#### FURATHANE WATER-CLEANABLE MORTAR

##### 22 lb. (10 kg.) Unit Consisting of:

One - 1-gal. can of Resin (8 lb. [3.6 kg.])

One - bag of Powder (14 lb. [6.4 kg.])

##### 132 lb. (59.9 kg.) Unit Consisting of:

One - 5-gal. pail of Resin (48 lb. [21.8 kg.])

Two - bags of Powder (42 lb. [19.1 kg.]) ea.

### TILE AND BRICK SURFACE PREPARATION

The tile or brick must be free of oils, grease, fats and other contaminants.

- Clean floor area with a scrub brush and a commercial grade detergent based degreasing solution. An alternate to detergent degreasers is a mixture of one pint trisodium phosphate (TSP) or sodium carbonate to two gallons of water. After scrubbing, rinse thoroughly with clean water. Repeat as necessary to remove any remaining contaminants.
- Remove excess and standing water by vacuuming. Follow product manufacturer's recommendations for proper use, handling and disposal of liquids.

### JOINT PREPARATION

- Saw cut the joints. A 5" or 6" diameter diamond tip masonry saw blade is suggested.  
Joint Width: Cut the joints the full width of the original joint to expose the side of the tile joint. Joint width should not exceed 1/4" (6.4 mm.). Minimum joint width is 1/8" (3.2 mm.).  
Joint Depth: Cut joint depth a minimum of 3/8" (9.5 mm.) deep. Joint depth should not exceed 1/2" (12.7 mm.).
- Remove all debris by vacuuming. Wipe tile face and tile joints with dampened sponge to remove residual dust.

### Conventional Sand Cement or Latex Modified Sand Cement Joints

- After Tile and Brick Surface Preparation and saw cutting of the joints has been completed, acid washing of the open joints is required prior to application of the FURATHANE WATER-CLEANABLE MORTAR.
- Apply by brush a dilute muriatic acid solution (one part acid to five parts water, by volume) to the open joints. After approximately 20 minutes, flush with clear water.
- Remove excess and standing water by vacuuming. Follow product manufacturer's recommendations for proper use, handling and disposal of liquids.

### TEMPERATURE DURING APPLICATION

Store FURATHANE WATER-CLEANABLE MORTAR 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, masonry units and FURATHANE WATER-CLEANABLE MORTAR components are between 70°F (21°C) and 85°F (29°C). The minimum temperature for installation is 60°F (16°C).

### MIXING OF THE FURATHANE WATER-CLEANABLE MORTAR

Stir the contents of the resin container prior to blending. Mix the components by hand using a clean, dry, plastic or metal container and a margin trowel. During mixing, move the trowel blade in circular and up and down motions scraping all sides and the bottom of the mixing container. The amount of the powder may be varied slightly to obtain the desired consistency. Proportionally increase or decrease component quantities to attain larger or smaller batch sizes.

## ESTIMATING - FURATHANE WATER-CLEANABLE MORTAR

Joint Width	Joint Depth	22 lb. Unit Square Feet per Unit			132 lb. Unit Square Feet per Unit		
		6" x 6"	8" x 3-7/8"	8" x 4"	6" x 6"	8" x 3-7/8"	8" x 4"
1/8"	3/8"	175 ft <sup>2</sup>	155 ft <sup>2</sup>	155 ft <sup>2</sup>	1,065 ft <sup>2</sup>	930 ft <sup>2</sup>	950 ft <sup>2</sup>
1/8"	1/2"	130 ft <sup>2</sup>	115 ft <sup>2</sup>	115 ft <sup>2</sup>	800 ft <sup>2</sup>	700 ft <sup>2</sup>	710 ft <sup>2</sup>
1/4"	3/8"	90 ft <sup>2</sup>	80 ft <sup>2</sup>	80 ft <sup>2</sup>	545 ft <sup>2</sup>	480 ft <sup>2</sup>	490 ft <sup>2</sup>
1/4"	1/2"	65 ft <sup>2</sup>	60 ft <sup>2</sup>	60 ft <sup>2</sup>	410 ft <sup>2</sup>	360 ft <sup>2</sup>	370 ft <sup>2</sup>

The following instructions are for a batch size of 2 lb. 12 oz. (1.2 kg.):

- Place 1 lb. (454 g.) or 13 fluid ounces (385 ml.) of the FURATHANE MORTAR Resin in the mixing container.
- Add approximately 1 lb. 12 oz. (794 g.) or 30 fluid ounces (0.9 liters) of FURATHANE WATER-CLEANABLE MORTAR Powder.
- Mix the combined components for approximately two minutes or until all the powder is thoroughly dispersed.

#### Mix Ratio, by Weight

Furathane Mortar Resin	100 parts	1 lb. (454 g.)
Furathane W-C Mortar Powder	175 parts	1 lb. 12 oz. (794 g.)

#### Mix Ratio, by Volume

Furathane Mortar Resin	100 parts	13 fl. oz. (385 ml.)
Furathane W-C Mortar Powder	229 parts	30 fl. oz. (0.9 liters)

### APPLICATION OF THE FURATHANE WATER-CLEANABLE MORTAR

- Place freshly mixed FURATHANE WATER-CLEANABLE MORTAR on the tile or pavers.
- With a rubber faced or steel trowel, work the mortar into the open joints.
- The rubber faced trowel or rubber squeegee is used to remove excess mortar. Hold the trowel with the flat edge nearly perpendicular to the surface and pull diagonally across the grouted joints. Remove as much residue as possible from the tile surface.

### TYPICAL WORKING & SETTING TIMES OF THE FURATHANE WATER-CLEANABLE MORTAR

Temperature	Working Time	Support Foot Traffic
60°F (16°C)	20-25 min.	9 to 11 hours
75°F (24°C)	15-20 min.	4 to 5 hours
85°F (29°C)	10-15 min.	3 to 4 hours

### CLEANING OF THE FURATHANE WATER-CLEANABLE MORTAR

- Prepare 5-gallon pails of warm cleaning water. A small amount of liquid detergent added to warm water will aid the cleaning process.
- Change cleaning water frequently as it becomes laden with mortar residue.

- The removal of the mortar residue may begin immediately after the mortar has been placed in the joint.
  - Complete the cleaning of the tile within the working time listed on the "Typical Working and Setting Times" chart.
  - Rubber gloves should be worn at all times.
- Use a cotton cloth or towel to remove mortar residue from the surface of the tile. Rinse cloth or towel frequently during cleaning. Squeeze all excess cleaning water from the cloth or towel after each rinsing. Excessive water may cause the product to not set or cure properly. Replace used cloth or towel with clean cloth or towel as the cloth or towel becomes worn or laden with excess mortar residue.
  - Dampen the cloth or towel as described above. Loosen the mortar residue from the tile with a circular motion. Apply sufficient pressure to remove residue but not enough to pull mortar from the joints.
  - Rinse and squeeze all excess water from the cloth or towel. Repeat the cleaning procedure until surface appears clean. A slight streaking or haze may occur after the tile surface has dried.

After cleaning is completed, the floor area must be kept free of liquids and contaminants until the mortar can support foot traffic as listed on the "Typical Working and Setting Times" chart.

### CLEANING OF TOOLS AND EQUIPMENT

Solvents, such as methyl ethyl ketone, toluene, xylene or ethyl alcohol, will remove the materials referred to in this Data Sheet from mixing tools and equipment if cleaning is done immediately after use. 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 components in a cool, dry environment. Keep 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 FURATHANE WATER-CLEANABLE MORTAR 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 FURATHANE WATER-CLEANABLE MORTAR (5-39PI)

	80°F	H
Acetaldehyde	R	R
Acetic Acid, to 10%	R	R
Acetic Acid, Glacial	R	R
Alum or Aluminum Sulfate	R	R
Aluminum Chloride, Nitrate	R	R
Ammonium Chloride, Nitrate, Sulfate	R	R
Ammonium Hydroxide	R	R
Amyl Acetate	R	R
Amyl Alcohol	R	R
Aniline	N	N
Aqua Regia	N	N
Barium Chloride, Nitrate, Sulfate	R	R
Barium Hydroxide	R	R
Barium Sulfide	R	R
Benzene	R	R
Benzene Sulfonic Acid, 10%	R	R
Benzoic Acid	R	R
Boric Acid	R	R
Bromine Water	N	N
Butyl Acetate	R	R
Butyl Alcohol	R	R
Butyric Acid	R	R
Cadmium Chloride, Nitrate, Sulfate	R	R
Calcium Bisulfite	R	R
Calcium Chloride, Nitrate, Sulfate	R	R
Calcium Hydroxide	R	R
Carbon Disulfide	R	R
Carbon Tetrachloride	R	R
Chlorine Dioxide, Water Solution	N	N
Chlorine, Dry	C	N
Chlorine, Wet	N	N
Chlorine Water	N	-
Chloroacetic Acid, to 10%	R	R
Chlorobenzene	R	R
Chloroform	R	R
Chromic Acid	N	N
Citric Acid, to 10%	R	R
Copper Chloride, Nitrate, Sulfate	R	R
Dichloroacetic Acid, 10%	R	R
Dichlorobenzene	R	R
Diethyl Ether	R	R
Ethyl Acetate	R	R
Ethyl Alcohol	R	R
Ethyl Sulfate	R	R
Ethylene Dichloride	R	R
Ethylene Glycol	R	R
Fluosilicic Acid	R	R

	80°F	H
Formaldehyde	R	R
Formic Acid	R	R
Gasoline	R	R
Glycerine	R	R
Gold Cyanide	R	R
Hexane	R	R
Hydrobromic Acid	N	N
Hydrochloric Acid	R	R
Hydrocyanic Acid	R	R
Hydrofluoric Acid	R	R
Hydrofluosilicic Acid	R	R
Hydrogen Peroxide	N	N
Hydrogen Sulfide Gas, Dry or Wet	R	R
Iron Chloride, Nitrate, Sulfate	R	R
Isopropyl Ether	R	R
Kerosene	R	-
Lactic Acid	R	R
Lead Acetate, Nitrate	R	R
Linseed Oil	R	R
Magnesium Chloride, Nitrate, Sulfate	R	R
Magnesium Hydroxide	R	R
Maleic Acid	R	R
Mercuric Acetate	R	R
Methyl Acetate	R	R
Methyl Alcohol	R	R
Methyl Ethyl Ketone	R	R
Methyl Sulfate	R	R
Mineral Oil	R	R
Mineral Spirits	R	R
Muriatic Acid	R	R
Nickel Chloride, Nitrate, Sulfate	R	R
Nitric Acid	N	N
Nitrobenzene	R	R
Oleic Acid	R	R
Oxalic Acid	R	R
Perchloric Acid	N	N
Phenol	N	N
Phosphoric Acid	R	R
Phosphorous Acid	R	R
Phosphorous Trichloride	C	N
Phthalic Acid	R	R
Picric Acid	N	N
Potassium Bicarbonate, Carbonate	R	R
Potassium Chloride, Nitrate, Sulfate	R	R
Potassium Cyanide	R	R
Potassium Ferricyanide, Ferrocyanide	R	R
Potassium Hydroxide	R	R

	80°F	H
Pyridine	C	N
Rochelle Salt	R	R
Salicylic Acid	R	R
Silver Nitrate	R	R
Sodium Acetate	R	R
Sodium Bicarbonate, Carbonate	R	R
Sodium Chloride, Nitrate, Sulfate	R	R
Sodium Cyanide	R	R
Sodium Hydroxide, to 50%	R	R
Sodium Hypochlorite, to 3%	C	N
Sodium Hypochlorite, above 3%	N	N
Sodium Sulfide, Sulfite	R	R
Sodium Thiosulfate	R	R
Soya Oil	R	R
Stearic Acid	R	R
Sulfur Dioxide Gas, Dry or Wet	R	R
Sulfur Trioxide Gas, Dry	R	R
Sulfur Trioxide Gas, Wet	N	N
Sulfuric Acid, to 50%	R	R
Sulfuric Acid, above 50%	N	N
Sulfurous Acid	R	R
Tannic Acid	R	R
Tartaric Acid	R	R
Tin Chloride, Sulfate	R	R
Toluene	R	R
Trichloroethylene	R	R
Trisodium Phosphate	R	R
Tung Oil	R	R
Urea	R	R
Xylene	R	R
Zinc Chloride, Nitrate, Sulfate	R	R

**KEY**

R - Recommended  
 N - Not Recommended

C - Conditional; May be serviceable if the contaminant is immediately removed or washed off the surface.

H - Up to temperature limitations of the mortar. When the chemical boils below this point, resistance is shown to the boiling point.

**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.