

S-4500 FURA-SET EPOXY MORTAR

PRODUCT DESCRIPTION:

Fura-set is a 3 part 100% solids epoxy mortar system designed for outstanding chemical and moisture resistance. S-4500 Fura-set meets or exceeds ANSI A118.3 requirements for epoxy mortar. Fura-set will cure at low temperatures (40°F) and high humidity. Floor brick may be installed with Fura-set on sound damp concrete at temperatures as low as 40°F.

The basic fura-set filler system is an inert aggregate manufactured by Summitville Tiles, which exhibits superior physical characteristics when compared with typical epoxy filler systems. The liquid binder system is unique when compared with conventional epoxy binder systems, in that it will cure at low temperatures and on damp substrates. Fura-set meets all USDA requirements for meat and poultry processing plants.

Although Fura-set was designed primarily for floor brick installation, it will function well in other epoxy floor mortar applications.

USES:

Fura-set is recommended for setting floor brick in dairies, distilleries, chemical laboratories, breweries, food processing plants, meat and poultry processing plants, and refineries.

LIMITATIONS:

Continuous temperature exposure of cured Fura-set above 230°F is not recommended. Fura-set is designed for floor and cove base applications. It is not recommended for wall applications.

TECHNICAL DATA Physical Properties:

Hardness (Shore D) 7 days	65 - 70
Hardness (Shore D) 28 days	70 - 75
Linear shrinkage, %	0.01
Compressive strength, psi (ASTM C-109) 7 days	10,000
Shear bond strength, psi (ANSI A118.3) 7 days	1100
Tensile strength	1200 psi
Initial setting time @ 72°F hrs.	1 - 1 1/4 hrs.
Final setting time @ 72°F hrs.	7 days max.
Working time	45 - 60 min.
Pot life @ 72°F	60 min.

INSTALLATION:

Substrate: Fura-set is recommended for use on cured concrete, masonry surfaces, cement backer board and plywood.

Substrate shall be prepared in accordance with ANSI-A-108.4.2.1.2.

Surface to receive Fura-set must be structurally sound, free from sealers, coatings, oil, dirt, dust and standing water. New masonry surfaces should be sufficiently cured, dimensionally stable and free from cracks. Brush surfaces with a stiff brush to remove all loose material that may be encountered. Consult the Tile Council "Handbook for Ceramic Tile Installations" for setting instructions.

Tile/floor brick installation shall conform to ANSI A108.6 and The Tile Council of America.

MIXING: 4:1:15

Fura-set is furnished in 3 parts, Resin Part A Hardener Part B and Powder Part C. Fura-set is furnished in one standard size. For partial unit applications, the mix ratio is: Part A- 4 parts, Part B- 1 part and Part C- 15 parts by weight. Part C may

be adjusted to develop the consistency desired by the installation mechanic. Exact proportions and thorough mixing of parts A & B with one another is absolutely essential for satisfactory curing and performance. Stir both Parts (A and B) separately. NOTE: A clean stir paddle must be used to stir each part, to prevent component contamination. For partial unit mixing, measure out 4 parts by weight of Part A; 1 part by weight of Part B and pour into a clean mixing vessel, then mix both parts together using either hand tools or a slow speed power mixer. When liquids are mixed to a uniform color, slowly add Part C until desired mix consistency is obtained. Continue to mix until powder is completely wetted out and free from lumps (2-3 minutes).

CLEAN-UP:

Final clean-up, use Scotch-Brite pad and plenty of cool to warm (not hot) water.

WORKING CHARACTERISTICS:

Fura-set is ideally installed when it's temperature is between 65°-80°F. At higher temperatures, the pot life is reduced. If the Fura-set temperature is lower, this factor is reversed. The substrate temperatures may be as low as 40°F and damp but standing water must be removed.

APPLICATION:

Spread mixed Fura-set with a notched trowel. Use a 1/4" x 3/8" square notched trowel for heavy ribbed backed tile and brick. Use 1/4" square notched trowel for smooth or shallow ribbed pavers. Set tile/floor brick into Fura-set providing a finished bed of 1/8".

Full coverage of the setting material on the back of the tile is desirable to prevent broken and cracked tile. The National Tile Contractors Association recommendation to accomplish full coverage is as follows: Apply mortar to substrate using the flat side of the trowel to fill any voids and "key" the material to the substrate. Using the proper sized notched trowel, comb the mortar evenly in one direction only. Do not "swirl". Set the tile in the mortar with the edge of the tile parallel to the comb lines. To remove air voids, push the tile back and forth in the mortar perpendicular to the comb lines.

Discard any Fura-set that begins to set. Allow 6 - 10 hours (depending on substrate temperature) to elapse before grouting floor.

CAUTION:

Protect from traffic for 24 hours, heavy traffic for 7 days.

PROTECTING NEW TILEWORK:

To avoid damage to finished tilework, schedule floor installations to begin only after all structural work, building enclosure, and overhead finishing work, such as ceilings, painting, mechanical and electrical work are completed. Keep all traffic off of finished tile floors until it has fully cured, or provide up to 3/4" thick plywood protection over Kraft paper to protect floors before installation materials have fully cured.

COVERAGE:

18 sq. ft. per gallon (about 230 sq. ft./unit), using 1/4" x 1/4" sq. notched trowel.

COLOR:

#998 Red.

PACKAGING:

S-4500 is available in a 15 gallon (199 lb.) unit consisting of a 6 gallon bucket of part A (39 lbs. net), 2 gallons of part B (9.8 lbs. net) and two 75 lb. bags of part C filler powder.

SPECIFICATIONS:

Fura-set mortar shall be a 3 component mix, consisting of an inert aggregate and a special blend of activating hardeners and liquid epoxy resin and free from organic solvents as manufactured by Summitville Tiles, Inc., Summitville, Ohio. The material in the reacted state shall remain rigid and cohesive at temperatures up to 350°F. Fura-set chemical resistant epoxy mortar shall meet or exceed ANSI A118.3, and is approved by The United States Department of Agriculture for meat and poultry plants.

Color: Color shall be #998 Red.

CHEMICAL RESISTANCE GUIDE FOR S-4500

CHEMICAL	S-4500 80°F	CHEMICAL	S-4500 80°F	CHEMICAL	S-4500 80°F	CHEMICAL	S-4500 80°F	CHEMICAL	S-4500 80°F
Acetic Acid, Glacial	C	Benzaldehyde	N	Chromic Acid 10%	R	Lactic Acid 3%	R	Sodium Carbonate	R
Acetic Acid 10%	R	Benzene	N	Citric Acid 20%	R	Lactic Acid 10%	R	Sodium Hydroxide 35%	R
Acetic Acid 3%	R	Bromine Water	R	Cooking Grease	R	Lactic Acid 30%	C	Soy Sauce	R
Acetic Anhydride	N	Butanol	R	Cresol	N	Nitric Acid 50%	N	Sulfuric Acid 10%	R
Acetone	C	Butyl Acetate	C	Ethyl Bromide	N	Nitric Acid 10%	R	Sulfuric Acid 45%	R
Ammonia (household)	R	Calcium Chloride	R	Ethylene Glycol Monobutylate	R	Nitrobenzene	N	Sulfuric Acid 95%	N
Ammonium Bromide 30%	R	Calcium Hydroxide	R	Ferric Chloride	R	Nitrotoluene	R	Tetrahydrofuran	N
Alcohol	R	Carbon Disulfide	C	Formic Acid Glacial	N	Phenol	N	Trisodium Phosphate	R
Aniline	N	Carbon Tetrachloride	R	Formic Acid 10%	C	Phosphoric Acid 10%	R	Vegetable Oil	R
Barium Hydroxide	R	Chloroacetic 50%	N	Hydroiodic Acid 20%	R	Potassium Hydroxide 5%	R	Wine	R
Beer	R	Chloroacetic 10%	N	Hydrobromic Acid 10%	R	Potassium Persulfate 50%	R		
Benzyl Acetate	C	Chlorobenzene	R	Hydrochloric Acid 37%	R	Pyridine 20%	C		
Benzyl Alcohol	N	Chlorine Water (bleach)	N	Hydrochloric Acid 10%	R	Saturated Sugar Solution	R		

R = Recommended
N = Not Recommended

C = Conditional
Contact Summitville Tiles, Inc.
before installation



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