

S-4000 SERIES FURAN CHEMICAL RESISTANT GROUTS

PRODUCT DESCRIPTION:

S-4000 Series is a two-part (liquid resin and powder catalyst) grout system for use where chemical resistance is important. When properly cured, S-4000 Series is resistant to most non-oxidizing acids, alkalis, solvents, oils, greases, salts, detergents and steam cleaning up to 350°F. The use of S-4000 Series requires a waxed tile/brick surface and appropriate installation skills. S-4000 Furan meets or exceeds ANSI 118.5 specifications.

S-4002B powder/catalyst is 100% carbon filler for optimum chemical resistance. S-4002B can be used to grout tile or brick using either the Tile Setter's method or the Bricklayer's method.

USES:

S-4000 Series grout is recommended for use in bakeries, breweries, bottling plants, dairies, distilleries, canneries, chemical plants, commercial kitchens, electroplating plants, food processing plants and meat packing plants.

LIMITATIONS:

S-4000 Series grout must be mixed and used at the specified temperature limitations. Must be mixed in small batches (12-lbs. maximum). Best handling characteristics are achieved when material temperatures are between 70°F and 80°F. S-4000 Series should not be set directly over concrete or come in contact with water or any alkaline materials such as cement dust. In cases where the grout comes in contact with chlorine or nitric acid, S-5000 Epoxy Grout is recommended.

TECHNICAL DATA Physical Properties:

Hardness (Shore D) 7 days	65
Hardness (Shore D) 28 days	75
Linear shrinkage, (% 30 days at room temp.)	0.35
Compressive strength (ASTM C579)	6000 psi (41.4 MPa)
Flexural strength (ASTM C580)	2000 psi (13.8 MPa)
Tensile strength (ASTM C307)	900 psi (6.2 MPa)
Bond strength to wire cut brick faces (ASTM C321)	752 psi (5.0 MPa)
Bond strength to matte surface brick (ASTM C321)	580 psi (4.0 MPa)
Maximum service temperature	350°F (m°C)
Work Life (ASTM C308)	25-35 minutes
Initial set time (ASTM C308)	40-50 minutes
Color of mortar	Black
Absorption (ASTM C413)	0.17%
Product Density	1.18 lb./gallon

	60°F	70°F	80°F	90°F
Working time (min.)	60-90	15-30	8-10	5-8
Set time (hrs.)	48-60	14-24	5-7	2-4

CHEMICAL RESISTANCE:

Based on 28 day immersion at room temperature.

- R - Recommended
- # - Recommended to 80°F only
- N - Not Recommended

S-4002B

Acetic Acid, 3%	R
Acetic Acid, 10%	R
Acetic Acid, glacial	R
Acetic Anhydride	R
Acetone	N
Ammonia (household)	R
Ammonium Bromide	R
Amyl Alcohol	R

Aniline	N
Barium Hydroxide, 3%	R
Beer	R
Benzene	R
Benzyl Acetate	R
Benzyl Alcohol	R
Bromine Water	N
Butanol	R
Butyl Acetate	R
Calcium Chloride, 45%	R
Calcium Hydroxide	R
Carbon Disulfide	R
Carbon Tetrachloride	R
Chlorine Water	N
Chloroacetic Acid, 10%	R
Chlorobenzene	R
Chromic Acid	N
Citric Acid	R
Cooking Grease	R
Cresol	N
Ethyl Alcohol	R
Ethyl Bromide	N
Ethylene Glycol Monobutanate	R
Ferric Chloride	R
Hydrobromic Acid	N
Hydrochloric Acid, 10%	R
Hydrochloric Acid, 37%	R
Hydrofluoric Acid, 10%	R
Hydrofluoric Acid, 48%	R
Lactic Acid, 3%	R
Lactic Acid, 10%	R
Nitrobenzene	R
Nitric Acid, 5%	N
Nitric Acid, 20% and over	N
Nitrotoluene	N
Phenol	N
Phosphoric Acid, 10%	R
Potassium Persulfate	R
Pyridine	#
Saturated Sugar Solution	R
Sodium Carbonate, 30%	R
Sodium Hydroxide, up to 30%	R
Sodium Hydroxide, over 30%	R
Soy Sauce	R
Sulfuric Acid, 10%	R
Sulfuric Acid, 45%	R
Sulfuric Acid, over 50%	R
Tetrafulran	N
Trisodium Phosphate	R
Vegetable Oil	R
Vinegar	R
Wine	R

INSTALLATION:

Substrate surface must be dry, free from coatings, oil, dirt and dust. Contamination by water or any alkaline material such as cement dust must be avoided while S-4000 Series is in the uncured state.

