



S-5000 EZQS
(EASY FLOW QUICK SET FORMULA) HIGH CHEMICAL RESISTANT EPOXY

PRODUCT DESCRIPTION:

S-5000 EZQS is a highly chemical resistant epoxy grout that meets or exceeds requirements of ANSI A118.3 (Epoxy) and ANSI A118.5 (Furan). S-5000 EZQS is a three part 100% solids epoxy compound for grouting of floor brick, quarry tile, pavers, porcelain tile and ceramic mosaics. S-5000 EZQS is designed to be used in many applications where furan grout has been required in the past. It is designed to resist attacks by many acids, alkalis and other chemical compounds that normally break down cement mortars and standard 100% epoxy grouts. S-5000 EZQS resists chlorine and nitric acid, which destroys furan. It is recommended for use in distilleries, refineries, chemical laboratories, breweries, dairies, food processing plants, etc. S-5000 EZQS not only has exceptional bond strength (greater than 1000 P.S.I.) but it will remain rigid and cohesive at temperatures up to 350°F.

USES:

S-5000 EZQS is recommended for use in distilleries, refineries, laboratories, food processing plants and commercial kitchens, including fast-food restaurant applications.

ANSI A118.3 Epoxy Requirements

| Property | S-5000 EZQS Typical Value | Requirement |
|----------------------|---------------------------|----------------------|
| Water Cleanability | Pass | 80 minutes |
| Initial Setting Time | Pass | < 2.0 hours |
| Service Setting Time | Pass | > 7 days |
| Shrinkage | 0.03% | < 0.25% |
| Sag | Pass | .000 inches |
| Quarry Shear Bonds | > 1000 PSI (6.9 MPa) | > 1000 PSI (6.9 MPa) |
| Compressive Strength | 12,500 PSI (87 MPa) | > 3500 PSI (24 MPa) |
| Tensile Strength | 2000 PSI (14 MPa) | > 1000 PSI (6.9 MPa) |
| Thermal Shock | 550 PSI (3.8 MPa) | > 500 PSI (3.4 MPa) |

ANSI A118.5 Requirements for Silica Filled Furan Grout

| Property | Test Method Value | S-5000 EZQS Typical | Required Silica Grout Value |
|-----------------------|-------------------|---------------------|-----------------------------|
| Compressive Strength | ASTM C579 | 12,500 PSI (87 MPa) | 3000 PSI (21 MPa) |
| Tensile Strength | ASTM C307 | 2000 PSI (14 MPa) | 400 PSI (2.75 MPa) |
| Absorption | ASTM C413 | 0.12% | Max. 1% |
| Modulus of Rupture | ASTM C580 | 5000 PSI (3.5 MPa) | 600 PSI (4.1 MPa) |
| Initial Set, Hours | ASTM C308 | 2 | Max. 5 |
| Final Set, Days | ASTM C308 | 2 | Max. 7 |
| Linear Shrinkage | ASTM C531 | 0.05% | Max. 1% |
| Working Time, Minutes | ASTM C308 | 45 | Min. 10 |
| Bond Strength | ASTM C321 | Pass | 150 PSI (1 MPa) |

LIMITATIONS:

Surface temperature of substrate should be above 50°F during tile installation and cure. Continuous exposure of cured S-5000 EZQS above 350°F is not recommended.

INSTALLATION:

Substrate: S-5000 EZQS is recommended for use on cured concrete, masonry surfaces, cement backer units (CBU) and plywood. Substrate shall be prepared in accordance with ANSI A108.4. The surface to receive S-5000 EZQS must be structurally sound, dry and free of sealers, coatings, oil, dirt and dust. New

masonry surfaces should be sufficiently cured, dimensionally stable and free from cracks. It is advisable to brush all surfaces with a stiff brush to remove any loose material that may be encountered. Consult the Tile Council of North America Handbook for Ceramic Tile Installations, ANSI A-108, and any other applicable standards for specific setting descriptions.

Mixing: S-5000 EZQS is furnished in 3 parts. Exact proportions and thorough mixing of parts “A” and “B” with one another is absolutely essential for satisfactory curing and performance. A 3-gallon unit requires about 28 pounds of part C powder. The final working viscosity can be altered by the amount of part “C” added. Empty contents of part “A” and “B” into mixing bucket and mix well. Then gradually add part “C” powder and mix thoroughly using either hand tools or a slow spin powered mixer. Care must be taken to avoid whipping air into this mix. Continue to mix until smooth and free of lumps. It is highly recommended that complete units be mixed at a time; however, if necessary to split a unit, weigh out 2 parts “A”, 1 part “B” and about 8 parts “C”. Clean tools with warm soapy water immediately after use.

Working Characteristics: S-5000 EZQS is ideally installed at temperatures from 70° to 80°F. At higher temperatures the pot life, open time and clean-up time are reduced; however, it is more fluid and easier to work. At lower temperatures these factors are reversed. Working surface temperature can vary from room temperature and should be taken into consideration. Do not begin application of S-5000 EZQS until the temperature of the room and substrate is 50°F or higher during the curing period. S-5000 EZQS must be stored at room temperature for at least 24 hours before use. Depending upon storage and packaging practices, normalizing time may be significantly longer.

Working and Cure Times

| Temperature | Pot Life | Open Time | Clean Up Time | Set Time |
|--------------------|-----------------|------------------|----------------------|-----------------|
| 50°F (10°C) | 50-60 minutes | 2 hours | 50-60 minutes | 7-8 hours |
| 70°F (21°C) | 40-45 minutes | 1 hour | 40-45 minutes | 4-5 hours |
| 90°F (32°C) | 10-15 minutes | 40 minutes | 10-15 minutes | 1-2 hours |

High humidity will slow cure time

APPLICATION:

As a grout: With a firm, straight edge rubber trowel (*Gundlach GK-2, Barwalt UFF 1B or similar*) force as much S-5000 EZQS into joints as possible, using sufficient pressure and flow to avoid air pockets or voids. Before the S-5000 EZQS loses its plasticity, remove excess with rubber trowel in a squeegee fashion working diagonally to joints to facilitate removal without pulling material from joints.

CLEAN-UP:

For initial clean up: Use a white plastic scrub pad or an epoxy sponge and a sufficient amount of clean water. Avoid water migration into un-grouted joints. Warm water with a small amount of SL-86 added will speed clean up. Change cleaning water and scrub pads/sponges often to avoid leaving a sticky film on the tile. Do not leave standing water on uncured epoxy joints after initial cleaning. Perform final clean up after 10 hours depending upon temperature but before 24 hours. Use cure time chart to estimate and adjust accordingly for other temperatures. Use a white scrub pad or epoxy sponge, SL-86 and water. Clean completely, as S-5000 EZQS is difficult to remove after it cures for over 24 hours. Wide tile joints may have a slight concave appearance after grout cure. Cover with Kraft paper after final clean up to protect from other construction debris during cure period.

CAUTION:

Protect from dirt and all traffic for 16 hours, heavy traffic and dirt for 48 hours. Do not grout in direct sunlight. Cure S-5000 EZQS a minimum of seven days at 70°F before chemical exposure.

PROTECTING NEW TILEWORK:

To avoid damage to finished tilework, schedule floor installations to begin only after all structural work, building enclosure and overhead finished 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 ¾” thick plywood protection over Kraft paper to protect floors before installation materials have fully cured.

PACKAGING:

3 Gallon Units, Gross Wt. = 41 pounds

COLOR:

Color is #991 Black, #961 Gray. Custom colors available.

Chemical Resistance

| Chemical | Continuous Exposure | Intermittent Exposure |
|---------------------------------|----------------------------|------------------------------|
| Acids | | |
| Acetic Acid 10% | R | R |
| Citric Acid 5% | R | R |
| Hydrochloric Acid 50% | R | R |
| Lactic Acid 10% | R | R |
| Nitric Acid 30% | R | R |
| Oleic Acid 10% | R | R |
| Sulfuric Acid 50% | R | R |
| Alkalis/Cleaners | | |
| Sodium Hydroxide (saturated) | R | R |
| Sodium Hypochlorite (Bleach) 5% | R | R |
| Sodium Gluconate (saturated) | R | R |
| Misc. | | |
| Beer | R | R |
| Ethyl Alcohol | R | R |
| Mineral Spirits | R | R |
| Xylene | R | R |
| Toluene | R | R |
| Methylene Chloride | NR | NR |
| Phenol Alcohol | NR | R |

Please Refer to Grout Coverage Tables for Grouting Coverage

Also available in Super Flow.