

S-300 Super-Quik™

TECHNICAL DATA SHEET

DESCRIPTION

S-300 Super-Quik™ concrete repair mix is a two-component, fast-setting, concrete repair mixture. S-300 Super-Quik sets in 5 minutes and will accept heavy vehicle traffic in as little as 15 minutes. S-300 Super-Quik is not affected by rain, freezing temperatures, heat or other adverse conditions and will set up in contact with, or submerged in water. S-300 Super-Quik consists of component "A" which is S-301 Super-Quik Part A (Liquid Activator) and component "B" S-302 Super-Quik Part B (Dry Cement Compound). This product does not require water or wettings for curing. S-300 Super-Quik can be installed at any depth and feather to a zero thickness. **IMPORTANT:** The installer has 3 to 5 minutes to mix, place and finish. The working and set-up times may be increased by using a greater amount of the S-301 Super-Quik Part A (Liquid Activator).

USES

Highways
Airport Runways
Bridge Decks
Structural Concrete Repair
Basements
Swimming Pools
On-grade / Vertical / Overhead Repairs
Spall Repairs

Water & Sewage Treatment Plants
Curb / Gutter / Sidewalk Repair
Freezer Floors
Concrete Pipes
Dams and Reservoirs
Structural Crack Repair
Handicap Ramp Reconstruction
Self-Leveling Projects



ADVANTAGES

- Fast-setting skim coats or deep fills
- Easy mixing
- Nearly eliminates lane closures and downtime
- Requires minimal surface preparation
- Works under water
- Can be used in rain or freezing temperatures
- Can be hand-mixed or machine-mixed
- Compatible with all Super-Krete Products
- Water and sewage treatment plants
- Curb, gutter and sidewalk repair
- Freezer floors
- Concrete pipes
- Dams and reservoirs
- Structural crack repairs
- Handicap ramp reconstruction
- Self-leveling projects

CSI RELATED SECTIONS

03 01 30.71 - Rehabilitation of Cast-In-Place Concrete	32 01 19.62 - Patching of Rigid Paving
03 01 40.61 - Resurfacing of Precast Concrete	32 01 26 - Rigid Paving Rehabilitation
03 31 23 - High-Performance Structural Concrete	32 01 26.74 - Concrete Overlays
03 37 26 - Underwater Placed Concrete	32 01 29 - Rigid Paving Repair
03 53 00 - Concrete Topping	



IMPORTANT INFORMATION

The installer has 3 to 5 minutes to mix, place and finish the repair, however, S-300 Super-Quik bonds tenaciously to itself and repairs can be made rather easily. A small amount of ammonia may be released from the mixture while the chemical reaction takes place. For interior repairs or when mixing by hand, use a dust mask, approved respirator and heavy-duty rubber gloves. The chemical reaction of the S-300 Super-Quik mix will cause the product to become very warm or hot depending on the amount of the S-301 Super-Quik Part A (Liquid Activator) used. Product will harden immediately once set takes place.



Super-Krete® Products is a Division of Arizona Polymer Flooring, Inc.

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MIXING

The size of aggregate used is determined by the depth of the required repair. 3/8" or larger gravel is recommended as an extending material and to increase the strength of the mix. #30 silica sand is to be used for a smoother or thin-set finish or to feather edge. Mixing may be accomplished using a standard heavy-duty (1/2") drill and mixing paddle for small repairs. A plaster mixer can be used when mixing large quantities.

The amount of S-301 Super-Quik Part A (Liquid Activator) required will depend upon the desired consistency. Determine in advance whether the required mix will be for thin-set repairs or for dry packing.

SUPER-QUIK MIXING RATIO & COVERAGE CHART

THIN-SET APPLICATIONS

- (1) Part (Part B) Dry Cement Compound
- (2) Parts #30 Silica Sand (dry)
- (1) Part (Part A) Liquid Activator

1. Pre-mix (Part "B") Dry Cement Compound with (2) parts #30 Silica Sand.
2. Add (1 to 2) parts Part ("A") Activator and mix immediately until no lumps. Apply immediately.

Note: Up to (2) parts (3/8") or larger aggregate can be added to the (Part "B") Dry Cement Compound before adding (Part "A") Liquid Activator to increase structural strength.

DEEP FILL APPLICATIONS

- (1) Part (Part B) Dry Cement Compound
- (2) Parts #30 Silica (dry)
- (2) Parts 3/8" Aggregate
- (1 to 2) Parts (Part A) Liquid Activator

COVERAGE RATE FOR THIN-SET APPLICATIONS

One two Part Kit (100 lbs.) mixed with (100 lbs. #30 Silica Sand) will cover approximately (150 sf at 1/8" thickness).

COVERAGE RATE FOR DEEP FILLS OR PATCHES

One Two-Part Kit (100 lbs) mixed with (100 lbs. #30 Silica Sand) and (100 lbs. 3/8" Aggregate) will produce a yield of (2.5 cubic feet of finished product).

APPLICATION

Before applying S-300 Super-Quik, the surface to be repaired needs to be clean and free of any bond inhibitors such as dirt, oil, grease, coatings, sealers or other surface contamination to ensure a co-adhesive bond to the substrate. Remove any loose or broken concrete. Place and finish the repair immediately after mixing. Once the chemical reaction takes place, the material will immediately solidify. Small repairs are to be mixed using heavy-duty rubber gloves and the material placed to the repair by hand or cement trowel. Larger areas such as pot holes should be filled and finished using a cement trowel. Curb reconstruction and curb radiuses are installed using temporary or hand-held forms. Keep tools and gloves wet with water during the finishing process. For added wear and skid resistance, broadcast 12 grit or larger dry sand while still wet and tamp lightly with a trowel. S-300 Super-Quik repairs or overlays must be water-blasted prior to receiving resurfacing, coloring or protective sealing to remove residue from the surface created during the curing process.

Tools required : 5 Gallon Pail, 1/2" Drill, Mixing Paddle (Jiffy® mixer), Trowel(s), Chemical-resistant rubber gloves and an approved respirator.

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Compressive Strength (ASTM C109):

2 hrs: 2700 – 4500 psi (depending on aggregate)
7 Days: 3900 – 6000 psi (depending on aggregate)
28 Days: 5300 – 9000 psi (depending on aggregate)

Freeze/Thaw (ASTM C109)

Successful bonding over 522 cycles
Durability factor= 0.83

Shrinkage Less than 0.143%

Odor: **Part A:** None
Part B: None

Appearance: **Part A:** Green Liquid
Part B: White or pigmented, solid/powder form

V.O.C. Content < 100 g/liter

Packaging: **Part A:** 5 gal/ 18 Kits per pallet
Part B: 5 gal/ 18 Kits per pallet

Shelf Life: **Part A (Liq) :** 2-3 yrs
Part B (Dry) - unlimited when stored properly

Storage: Store in a cool, dry place

Porosity Fine aggregate: 0.9;
Coarse aggregate: 5.0

Flexural Strength: 1000 psi (6.89 MPa)

Bond Strength (Push-Out Test)

Breaking Patch Bond:
5 hrs: Total load on 6" cylinder patch was 415 psi
24 hrs: Total load on 6" cylinder patch was 710 psi

Coefficient of Thermal Expansion

5.0831 X 10⁻⁶ in/in/F

Abrasion Resistance (Spellman method)

At 45 days: abrasion loss was 29 grams

Corrosion of Reinforcing Steel

At 40 days in Supernatant liquid: no corrosion
At 1 year in Supernatant liquid: no corrosion

ASTM C-39

	<u>Mortar Cube</u>	<u>Deep Fill</u>
1 Hour	5500 psi	4400 psi
3 Hour	6300 psi	4400 psi
6 Hour	6400 psi	4800 psi

CAUTION

Keep away from children. Do not take internally. Always use safety gloves, the appropriate eye protection, and appropriate OSHA/NIOSH approved respirator in areas with poor ventilation and when exposed to spray mist, both indoors and outdoors. If ingested, seek medical attention immediately.

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LIMITATIONS:

Super-Krete Products are to be applied only when surface temperatures are above 55°F and rising and not to exceed 100°F. Super-Krete Products are not to be applied when precipitation is expected within 24 hours following completion of application. Do not allow materials to freeze. Each Super-Krete product acts as an inherent part of a proven system. Super-Krete Products are professional, contractor grade products. Training in the use of these products is available. Consult a Super-Krete Products representative for information and assistance locating approved contractors in your area or for training class dates.

MOISTURE VAPOR EMISSIONS PRECAUTIONS:

All concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride testing in compliance with ASTM F1869, or relative humidity probe testing in compliance with ASTM-F2170, to determine if excessive levels of vapor emissions are present before applying any coatings. Arizona Polymer Flooring offers **S-1300 Pene-Krete®** for cementitious overlay products and **VaporSolve® Moisture Remediation** systems for resinous floor coatings. Consult our technical service department. Arizona Polymer Flooring and its sales agents will not be responsible for coating failures due to undetected moisture vapor emissions.

WARRANTY:

Arizona Polymer Flooring guarantees that this product is free from manufacturing defects and complies with our published specifications. In the event that the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. ARIZONA POLYMER FLOORING MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. Arizona Polymer Flooring shall not be liable for damages caused by application of its products over concrete with excessive moisture vapor transmission or alkalinity. Arizona Polymer Flooring shall not be liable for any injury incurred in a slip and fall accident. Manufacturer or seller shall not be liable for prospective profits or consequential damages resulting from the use of this product.

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