



PRO-SURFACE 90QS

Bonded Materials Company • 91-400 Komohana St. • Kapolei, Hawaii 96707-1716 • Phone (808)832-1155 • Fax (808)832-1151

TYPICAL APPLICATIONS

- ♦ Structural Concrete Repairs
- ♦ Rapid Bridge Deck Repairs
- ♦ Runways
- ♦ Thin Bonded Overlays
- ♦ Industrial Concrete Repairs
- ♦ Parking Structures
- ♦ All Vertical Concrete Repairs

DESCRIPTION

PRO-SURFACE 90QS is a high performance, two-component, polymer-modified concrete repair mortar. Part A consists of a polymer liquid called "PRO-SURFACE." Part B consists of a pre-bagged mixture of quick-setting cement and specially graded sand called "90QS." When these two parts are mixed together they form a flexible, fast drying, high-strength repair mortar that can be subjected to vehicular traffic as soon as forty minutes after placement. Depending on the consistency of the mixture, PRO-SURFACE 90QS can be applied in thicknesses of featheredge to 10" per lift; however, over 2" it must be extended with 3/8" pea gravel.

USES

PRO-SURFACE 90QS is used to fill damage and spalls in high traffic conditions such as roads, bridges, parking structures, and warehouses where a fast turn-around time is necessary. It is also effective to use for vertical and overhead application such as lanai edge repair, median barriers, and walls. Its unique adhesion characteristics allow for many deep spalls and holes to be repaired in a single lift. Additionally, if PRO-SURFACE 90QS is mixed to a trowel-grade or fluid consistency it can be used to skim coat horizontal surfaces. PRO-SURFACE 90QS can be painted or coated in two hours after application.

TEST RECAP

- Bond Strength to steel (ASTM 4541) 466 psi
- Bond Strength to concrete ASTM C-928) 1,450 psi
- Compression Strength (ASTM C-39)
 - 3 hr. break 3,140psi
 - 6 hr. break 5,460psi
 - 24 hr. break 6,300psi
 - 28 day break 8,700psi
- Abrasion Resistance (ASTM C-779) .0069 wear depth after 1,000 cycles
- Linear Shrinkage (ASTM C-531) 7-day 0.023
- Skid Resistance (ASTM C-274) SN >70

PRO-SURFACE (Part A): milky white color; Specific Gravity: 1.04; Net Weight: 9.1 lbs/gal; Solids Content (by weight) 50%; Flash Point: none; Toxicity: non-toxic; Odor: mild, sweet; VOC: <10g/l

90QS (Part B): 50 lbs.; produces a light gray color when mixed.

SURFACE PREPARATION

Surface must be clean and sound. Remove all loose concrete and other contaminants such as rust, oils, dirt, etc., that may affect bonding. Preparation should create an absorbent, rough surface profile (ICRI CSP #5).

Caution: Although PRO-SURFACE 90QS will bond tenaciously to virtually all materials, the ultimate bond strength of the patch can only be as strong as the adhesion and the strength of the material(s) it is applied to.



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MIXING PROCEDURE

1: Add PRO-SURFACE (Part A) polymer liquid to a clean mixing container. 2: With the mixer turning, slowly add 90QS (Part B) powder to the PRO-SURFACE liquid. Continue to add 90QS to achieve desired workable consistency. Ensure that the mortar is uniformly mixed to a lump-free consistency. A typical application uses 1.5 gallons of PRO-SURFACE (Part A) to one 50 lb. pail of 90QS (Part B) powder.

NOTE: PRO-SURFACE 90QS can be mixed to a stiff consistency for horizontal, vertical, and overhead repairs; or, for thin horizontal overlay applications it can be mixed to a flowable consistency. For deep repairs or overlays over 2 inches, add 25 lbs. of 3/8 inch rock to the mortar while continuing to mix.

APPLICATION INSTRUCTIONS

Scrub a fluid bond-coat of the PRO-SURFACE (Part A) diluted 1:1 with water into the prepared substrate with a stiff broom or brush making certain to coat all surfaces and voids. **Do not allow this scrub coat to dry for longer than 1 hour before placing the patch!** After placing the mixed PRO-SURFACE 90QS to the required areas, smooth and finish the surface to the specified surface profile. Additional PRO-SURFACE (Part A) liquid can be sprayed onto the surface for use as a finishing aid. **Do not use water as a finishing aid!**

CAUTION: Do not allow PRO-SURFACE 90QS to harden on tools or equipment. Also, excessive exposure to direct sunlight before and after being mixed will accelerate hardening. To avoid accelerated hardening, keep both components of PRO-SURFACE 90QS in a cool dry area prior to application.

COVERAGE / YIELD

When 1 gallon of PRO-SURFACE (Part A) liquid is mixed with a 50 lb. bag of 90QS (Part B) cement based powder it will yield approximately .44 cubic feet of trowel-grade patching or overlay material.

PACKAGING

PRO-SURFACE (Part A) liquid is available in 1 gallon jugs. 90QS (Part B) powder is available in 50 lb. pails.

BENEFITS

- ♦ High early strength
- ♦ Suitable for feather-edging or deep patching
- ♦ No under-cut reinforcing steel required
- ♦ No drying shrinkage
- ♦ Open to traffic in as little as 40 minutes after placement
- ♦ Variable liquid ratio

TECHNICAL ASSISTANCE

Technical assistance is available from the Bonded Materials Company.