



SPECNAIL SHOTCRETE

1-888-SPECMIX

DIVISION **03**
SHOTCRETE PRODUCTS



High Durability. Easy Finishing.

SPEC MIX® SPECNAIL is a preblended, high early strength, cement-based product designed to be used for wet or dry process soil and slope stabilization applications. It can be custom designed and packaged to meet specific properties and/or project requirements. This preblended shotcrete

mixture is specially formulated to produce a cohesive and fast-setting material with good shooting, adhesion and strength characteristics. SPECNAIL is designed to harden and gain strength quickly for a wide range of soil and slope stabilization applications.

SPECNAIL is produced under strict manufacturing standards and complete quality control measures are implemented with each batch. A digital printout displaying the proper proportions per batch may be kept as a permanent record. Each SPEC MIX® manufacturer certifies that SPEC MIX® shotcrete products are designed to meet the project specifications and applicable ASTM and ACI standards.

MATERIALS USED

PORTLAND CEMENT
FLY ASH
SILICA FUME
FIBERS (EITHER STEEL OR SYNTHETIC)
AGGREGATES
SPECIAL CHEMICAL ADMIXTURES



TOTAL QUALITY CONTROL WITH EVERY BAG
REDUCED LABOR COSTS AND STORAGE SPACE
CONSISTENCY BATCH TO BATCH
GREAT ADHESION CHARACTERISTICS
THICKER LAYERS WITH ONE PASS (UP TO 18 INCHES)
LESS REBOUND
EXCELLENT DURABILITY AND STRENGTH

INSTALLATION/APPLICATION

SPEC MIX® SPECNAIL is a dry, preblended product that may be used in either wet or dry processes. Shotcrete should be installed in accordance with the provisions of the local building code and The American Concrete Institute's recommended practices (ACI 506R-90, "Guide to Shotcrete"). Shotcrete products should be applied only by an experienced, certified nozzleman.

When combining water with the shotcrete mixture, either during mixing for wet process application or at the nozzle for dry process applications, use clean, potable water.

Once the water is combined with the shotcrete mixture, SPECNAIL should be installed before a loss of consistency is experienced. This time period may be shorter in hot weather conditions. Dry conditions may cause the shotcrete to harden more rapidly. Prior to application of the shotcrete, the substrate should be cleaned and evenly moistened, but not saturated. Provide sufficient moisture to permit continuous hydration of the cementitious materials for optimum curing.

Although SPECNAIL shotcrete reduces rebound, some rebound is to be expected. Do not incorporate rebound material back into the applied shotcrete.

SPECNAIL is designed for a gun finish only. If another finish is desired contact a SPEC MIX®, Inc. representative.

SIZES AND EQUIPMENT

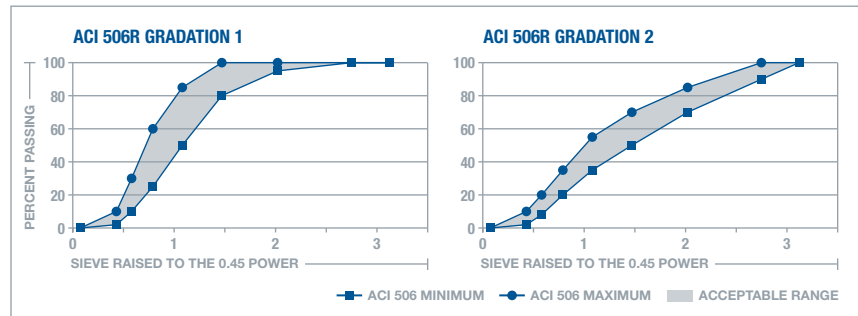
SPEC MIX® shotcrete mixes are available in 80 lb. (36 kg.) or 94 lb. (42 kg.) packages for easy hand loading or in 3000 lb. (1362 kg.) reusable bulk bags to be used with the various patented SPEC MIX® silo systems. When using the silo system, once the bulk bags of shotcrete mix are delivered to the project site, the portable silo is loaded with a jobsite forklift and the product is dispensed into the shotcrete machine as needed. Just add water at the nozzle or concrete mixer and the shotcrete is ready to shoot.

WARRANTY

Seller warrants that its Product will conform to and perform in accordance with the product specifications. The foregoing warranty is in lieu of all other warranties, express or implied, including, but not limited to, those concerning merchantability and fitness for a particular purpose. Because of the difficulty in ascertaining and measuring damages hereunder, it is agreed that, except for claims from bodily injury, Seller's liability to the Buyer or any third party, arising out of the purchase of the Product from the Seller by Buyer shall not exceed the total amount billed and billable to the Buyer for the product hereunder.

TYPICAL AGGREGATE GRADATION DATA

AGGREGATE GRADATION PLAYS A CRUCIAL ROLE IN THE PERFORMANCE OF SHOTCRETE. MOST SPEC MIX® PLANTS PRODUCING SPECNAIL NATIONWIDE ARE ABLE TO PROVIDE COMBINED AGGREGATE GRADATIONS THAT MEET GRADATION NUMBERS 1, 2 OR 3 AS SPECIFIED IN TABLE 2.1 OF ACI 506R. WHERE LOCAL MATERIALS DO NOT MEET THE COMBINED AGGREGATE GRADATION REQUIREMENTS, PRECONSTRUCTION TESTING CAN BE PERFORMED TO SHOW COMPLIANCE TO PROJECT SPECIFICATIONS.



TYPICAL PRODUCT DATA

COMPRESSIVE STRENGTH (ASTM C 42)	
1-DAY	3200 PSI
3-DAY	3720 PSI
7-DAY	6100 PSI
28-DAY	6660 PSI
FLEXURAL STRENGTH (ASTM C 78)	
7-DAY	900 PSI
28-DAY	1810PSI
RAPID CHLORIDE PERMEABILITY (ASTM C 1202) IN COULUMBS	
89 (NEGLIGIBLE)	
VOLUME OF PERMEABLE VOIDS (ASTM C 642)	
12%	
RAPID FREEZE/THAW (ASTM C 666) DURABILITY FACTOR	
93	

DATA WAS COMPILED FROM IN-HOUSE LABORATORY AND FIELD TRIALS AND REPRESENTS ACHIEVABLE RESULTS. ACTUAL RESULTS MAY VARY DUE TO WORKMANSHIP, REGIONAL MATERIAL VARIATIONS, AND JOBSITE CONDITIONS.

APPLICABLE STANDARDS: ASTM AND ACI

ASTM C 1116 STANDARD SPECIFICATION FOR FIBER-REINFORCED CONCRETE AND SHOTCRETE: ASTM C 42 STANDARD METHOD FOR OBTAINING AND TESTING DRILLED CORES AND SAWED BEAMS OF CONCRETE: ASTM C 78 STANDARD TEST METHOD FOR FLEXURAL STRENGTH OF CONCRETE [USING SIMPLE BEAM WITH 3RD POINT LOADING]: ASTM C 642 STANDARD TEST METHOD FOR DENSITY, ABSORPTION, AND VOIDS IN HARDENED CONCRETE: ASTM C 666 STANDARD TEST METHOD FOR RESISTANCE OF CONCRETE TO RAPID FREEZING AND THAWING: ASTM C 1202 STANDARD TEST METHOD FOR ELECTRICAL INDICATION OF CONCRETE'S ABILITY TO RESIST CHLORIDE ION PENETRATION: ACI 506 SPECIFICATION FOR SHOTCRETE

LIMITATIONS

Since variation in properties of shotcrete-making materials can be significant, trial shoots using test panels must be performed to verify the properties of each mixture. Properly mixed and installed shotcrete requires little to no maintenance.

WARNING

This product contains greater than 0.1% crystalline silica. Avoid breathing dust; use a NIOSH-approved dust respirator and use only with adequate ventilation to keep dust levels below permissible levels. Also contains cementitious materials. Injurious to eyes. Contact with freshly mixed product can cause severe burns. Avoid eye contact or prolonged contact with skin. Wash thoroughly after handling. In case

of eye contact, flush with plenty of water for 15 minutes. Consult a physician. Keep out of the reach of children.

TECHNICAL SUPPORT

- CONTACT YOUR LOCAL SPEC MIX® MANUFACTURER
- VISIT WWW.SPECMIX.COM
- CONTACT SPEC MIX®, INC.
PHONE: 888-SPEC-MIX FAX: 888-FAX-SPEC