



1. Product Name

- SPEC MIX® Fiber Base Coat (FBC) Preblended Stucco
- SPEC MIX Scratch and Brown
- SPEC MIX Colored Finish Coat

2. Manufacturer

SPEC MIX, Inc.
 2025 Centre Pointe Blvd.
 Suite 260
 Mendota Heights, MN 55120
 (888) 773-2649
 (651) 688-8966
 Fax: (888) 329-7732
 E-mail: info@specmix.com
 www.specmix.com

3. Product Description

BASIC USE

SPEC MIX® Fiber Base Coat Stucco (FBC)
 SPEC MIX Fiber Base Coat is a code-approved, high performance, fiber-reinforced, premixed stucco basecoat for commercial and residential applications. Designed to minimize crazing and cracking, this base coat can be applied, by trowel or gun, to 3/8" - 1/2" (9.5 - 12.7 mm) and 3/4" - 7/8" (19 - 22.2 mm) thick stucco, One-Coat and traditional Scratch and Brown applications. Used in accordance with its code report, SPEC MIX Fiber Base Coat can be installed for 1-hour fire-resistive wall assemblies and for non-combustible construction.

SPEC MIX Scratch and Brown Stucco

SPEC MIX Scratch and Brown is a dry premixed stucco base coat for commercial and residential applications. It can be used as the scratch or brown coat in a 3-coat application. SPEC MIX Scratch and Brown is formulated to be applied by trowel or gun.

SPEC MIX Colored Finish Coat Stucco

This premixed cement-based finish coat is a preblended mixture designed for traditional 2- or 3-coat stucco systems. SPEC MIX Colored Finish Coat is available in a wide range of stock colors and, for additional flexibility, can be custom blended.



Application of proprietary, preblended, shrinkage compensated basecoat

COMPOSITION & MATERIALS

SPEC MIX Stucco Products are dry, proprietary mixes of cementitious materials, aggregates, sand and special admixtures. Manufactured throughout the United States and Canada, by licensed local manufacturers using high tech blending equipment and following strict quality control procedures, the products are produced with raw materials from each geographic region.

TYPES & SIZES

SPEC MIX Stucco Products are packaged in 80 lb (36 kg) bags and 3000 lb (1360 kg) bulk bags for use with any SPEC MIX delivery system.

BENEFITS

- A computer batching process and strict quality control procedures help ensure that the finished product complies with design and specification requirements
- Batch-to-batch consistency is maintained using dry sand to eliminate the bulking effect of moisture within the aggregate
- Portable SPEC MIX silos can be enclosed to permit construction in all climates
- Pallets and bulk bag containers are reusable and picked up whenever a new load of material is delivered to a site
- The SPEC MIX system helps eliminate the shoveling and heavy lifting associated with field mixing

LIMITATIONS

- Surface and ambient temperatures must be 40 - 100 degrees F (4 - 37 degrees C) during application and curing. Consult your local building code officials for cold weather masonry construction practices
- Do not install stucco under hot, dry or windy conditions
- Avoid applying in direct sunlight
- Protect walls from rain, snow and frost for 48 - 72 hours
- Expansion or control joints, installed to specifications of engineers, architects, designers and local building codes, are required at least every 144 ft² (13.4 m²) at floor lines in multilevel construction, at existing joints in the substrate and where dissimilar materials abut.

4. Technical Data

APPLICABLE STANDARDS

ASTM International

- ASTM C91 Standard Specification for Masonry Cement
- ASTM C109 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or (50-mm) Cube Specimens)
- ASTM C144 Standard Specification for Aggregate for Masonry Mortar
- ASTM C150 Standard Specification for Portland Cement

- ASTM C157 Standard Test Method for Length Change of Hardened Hydraulic-Cement Mortar and Concrete
- ASTM C190 Method of Test for Tensile Strength of Hydraulic Cement Mortars
- ASTM C348 Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars
- ASTM C595 Standard Specification for Blended Hydraulic Cements
- ASTM C413 Standard Test Method for Absorption of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
- ASTM C496 Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens
- ASTM C642 Standard Test Method for Density, Absorption, and Voids in Hardened Concrete
- ASTM C847 Standard Specification for Metal Lath
- ASTM C897 Standard Specification for Aggregate for Job-Mixed Portland Cement-Based Plasters
- ASTM C926 Standard Specification for Application of Portland Cement-Based Plaster
- ASTM C979 Standard Specification for Pigments for Integrally Colored Concrete
- ASTM C1063 Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster
- ASTM C1328 Standard Specification for Plastic (Stucco) Cement
- ASTM C1329 Standard Specification for Mortar Cement
- ASTM C1384 Standard Specification for Admixtures for Masonry Mortars
- ASTM E72 Standard Test Methods of Conducting Strength Tests of Panels for Building Construction
- ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials
- ASTM G53 Practice for Operating Light- and Water-Exposure Apparatus (Fluorescent UV-Condensation Type) for Exposure of Nonmetallic Materials

ICC Evaluation Service, Inc (ICC-ES) - AC11 Acceptance Criteria for Cementitious Exterior Wall Coatings

International Masonry Industry All-Weather Council (IMIAC)

- Recommended Practices and Guide Specifications for Hot Weather Masonry Construction
- Recommended Practices and Guide Specifications for Cold Weather Masonry Construction

TABLE 1 PHYSICAL & TECHNICAL PROPERTIES - SPEC MIX FIBER BASE COAT STUCCO				
Test Method	1 day cure	7 day cure	28 day cure	56 day cure
ASTM C109				
Compressive strength	1146	2101	2698	---
ASTM C348				
Flexural strength	---	620	690	---
ASTM C190				
Tensile strength	---	245	290	---
ASTM C496				
Splitting tensile strength	---	---	304	---
ASTM C413				
Water absorption	---	14.7%		
ASTM C157				
Shrinkage (%)	---	0.111	0.119	0.112
Expansion (%)	---	0.004	0.004	0.013

TABLE 2 PHYSICAL & TECHNICAL PROPERTIES - SPEC MIX FIBER BASE COAT STUCCO	
Test Method	Results
ASTM C642	
Water absorption	10.3%
ASTM E72	
Traversal load test	Average negative pressure: max. load @ 120 psf Average positive pressure: max. load @ 180 psf
ASTM G53	
Accelerated weather testing	Pass at 2000 hours of exposure
ICBO-ES	
Freeze/thaw text (10 cycles)	Pass
ASTM E119	
1-hour fire rating	Pass

APPROVALS

SPEC MIX Fiber Base Coat complies with ICC-ES AC11 Acceptance Criteria for Cementitious Wall Coatings.

FIRE PERFORMANCE

SPEC MIX Fiber Base Coat can be used to construct a 1-hour fire-resistive wall assembly; refer to SPEC MIX ESR-Report, Section 4.4 and 4.5 for construction requirements.

SPEC MIX Scratch and Brown can be used to construct 1-hour fire-resistive wall assemblies for walls with 7/8" (22.2 mm) total thickness. Check local codes for specific wall assemblies.

PHYSICAL/CHEMICAL PROPERTIES

For SPEC MIX Fiber Base Coat, see Tables 1 and 2.



SPEC MIX silo system improves production and mix consistency and eliminates the disposal of wasted sand and bagged goods



Computer batching ensures total quality control

SPEC MIX Scratch and Brown and SPEC MIX Colored Finish Coat comply with requirements of ASTM C926.

ENVIRONMENTAL CONSIDERATIONS

The SPEC MIX System is environmentally friendly and can contribute to LEED certification. SPEC MIX bulk bags and pallets are recycled, and the silo system eliminates the use of disposable paper bags, thus reducing landfill impact. Raw materials are typically extracted and used to manufacture products within 500 miles of the job site.

5. Installation

PREPARATORY WORK

Silo Delivery

When using the silo system, portable SPEC MIX silos and bulk bags are delivered to the project site. The silo is loaded, and the product dispensed into a mechanical batch mixer and applied by trowel or spray.

One-Coat Application

SPEC MIX Fiber Base Coat can be applied in a single pass with a minimum thickness of 3/8" (9.5 mm) and can be applied up to 1/2" (12.7 mm) in a single application. Use it for exterior walls of wood or steel stud construction and substrates of expanded polystyrene (EPS) insulation board, gypsum sheathing, fiberboard, plywood or oriented strand board (OSB).

Over concrete or masonry units, SPEC MIX Fiber Base Coat can be applied with or without lath. Over either wood or metal framing with sheathing, install a weather-resistive barrier, wire fabric or self-furred metal lath compliant with ASTM C1063 and ASTM C847.

When installed over wood-based sheathing, such as plywood, OSB or asphalt impregnated sheathing, 2 layers of grade D building paper, complying with UBC Standards, are required. As an alternative, 2 layers of grade D building paper, 1 layer of grade D 60-minute paper and 1 layer of EPS or extruded polystyrene board with tongue and groove edges can be used prior to the installation of the wire fabric or self-furred metal lath.

The wire fabric in a one-coat system must comply with ASTM C847 or be a minimum No. 20 gauge 1" (25.4 mm) galvanized self-furred woven steel wire fabric. The metal lath must also comply with ASTM C847; it must be self-furred and must be a minimum 2.5 lb/yd² (1.2 kg/m²).

For traditional Scratch and Brown application, the preparation of the substrates is consistent with the one-coat application; however, the self-furred woven wire fabric must be No. 17 gauge and the self-furred metal lath must be 3.4 lb/yd² (1.7 kg/m²), to properly carry the weight of the 3-coat system. SPEC MIX Fiber Base Coat or Scratch and Brown is applied in two passes. The first application (scratch coat) is 3/8" to 1/2" (9.5 - 12.7 mm) nominal thickness; the second application (brown coat) is 3/8" to 1/2" (9.5 - 12.7 mm) nominal thickness.

METHODS

Mixing

Follow the mixing requirements of ASTM C926. For consistent results, use a mechanical mixer for homogeneity, workability and good board life. Proper mixing procedures improve workability and water retention for hand application; over-mixing will entrain air, which can adversely affect properties.

80 lb (36 kg) Bag Mixing

- Use 1.5 to 2 gallons of potable water per bag
- Place 75% of the required water into a mechanical mixer
- Dispense 80 lb (36 kg) bags into the mixer and allow 4 minutes of mix time
- Add the remaining amount of water to achieve desired consistency
- Let the product mix for at least 1 additional minute; mixing times and procedures should be consistent from batch to batch

Silo System Mixing

- Place 75% of the needed water into the mixer. A double batch requires approximately four full 5-gallon (18.9 liter) pails

- Pull open the silo handle to dispense the SPEC MIX product
- Add the remaining amount of water for the desired consistency
- Mix the material for 5 minutes; mixing time and procedures should be consistent with every batch
- Maintain mixing procedures for consistent material

Application and Curing

- Apply SPEC MIX Fiber Base Coat, Scratch and Brown or Colored Finish Coat with a gun or trowel
- For one-coat applications of SPEC MIX Fiber Base Coat, apply at a minimum of 3/8" (9.5 mm) on the metal lath
- For traditional applications, apply 3/8" (9.5 mm) for the scratch coat and 3/8" (9.5 mm) for the brown coat
- Apply SPEC MIX Stucco Products in a continuous application. Always work to a wet edge to eliminate cold joints
- Moist cure for 48 hours with regular fogging spray after the stucco has taken its initial set (2-4 hours)

Silo Removal

When the project is complete, call the SPEC MIX distributor to load both the silo and empty reusable bags.

PRECAUTIONS

Safety glasses and a dust mask are recommended when handling any preblended mixture containing silica. The cementitious materials mixed on site are alkaline in nature and, on contact with water, will irritate eyes and skin. In case of eye contact, flood repeatedly with clean water and see a physician immediately. Do not rub eyes. Wash hands thoroughly after handling. Do not take internally. Keep out of the reach of children.

BUILDING CODES

Installation must comply with requirements of all applicable local, state and federal code jurisdictions, including:

- 2003 International Building Code (IBC)
- 2003 International Residential Code (IRC)
- BOCA National Building Code 1999 (BNBC)
- 1999 Standard Building Code (SBC)
- 1997 Uniform Building Code (UBC)

6. Availability & Cost

AVAILABILITY

SPEC MIX Stucco Products and the patented SPEC MIX silo delivery system are available

through a network of nationally licensed manufacturers with local distribution to every major market. Contact SPEC MIX, Inc. or visit the www.specmix.com website to locate a local manufacturer.

COST

Cost information is available from a local SPEC MIX manufacturer or your local distributor.

7. 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 for 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.

8. Maintenance

Properly installed products require little maintenance. Depending on service conditions, stucco walls may require periodic cleaning.

9. Technical Services

For technical assistance, contact your local SPEC MIX manufacturer; call (888) SPEC-MIX or visit the www.specmix.com website.

10. Filing Systems

- SmartBuilding Index
- SPEC-DATA®
- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.



SPEC MIX FBC Stucco is engineered for gun-applied basecoat in one- and three-coat wall systems



SPEC MIX FBC Stucco is formulated for ultimate workability and board life, as well as reduced cracking and crazing