SPEC MIX, Inc.

SPEC MIX®

Application of proprietary, preblended, shrinkage compensated basecoat

1. Product Name

- SPEC MIX® Fiber Base Coat (FBC Preblended Stucco)
  URL: Fiber Base Coat
- SPEC MIX Scratch and Brown
  URL: Scratch and Brown

Video: SPEC MIX Stucco Delivery Systems

2. Manufacturer

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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, it 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

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 and is formulated to be applied by trowel or gun.

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 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 (36.3 kg) bags and 3000 lb (1360 kg) bulk bags for use with any SPEC MIX delivery system.

BENEFITS

- A state-of-the-art 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 or hot weather 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 ft^2 (13.4 m^2) 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 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 C207 Standard Specification for Hydrated Lime for Masonry Purposes
- ASTM C348 Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars
- ASTM C595 Standard Specification for Blended Hydraulic Cements
- 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 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 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

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

SPEC MIX Scratch and Brown complies with requirements of ASTM C926.

ENVIRONMENTAL CONSIDERATIONS

The SPEC MIX System is environmentally friendly and can contribute points toward 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. It can be used 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/yd^2 (1.2 kg/m^2).

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/yd^2 (1.7 kg/m^2) 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"–1/2" (9.5–2.7 mm) nominal thickness; the second application (brown coat) is 3/8"–1/2" (9.5–12.7 mm) nominal thickness.

METHODS

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

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 (36.3 kg) Bag Mixing
- Add approximately 1.2 gallons (4.5 liters) –1.5 gallons (5.7 liters) of clean water into the mixer for each 80 lb. (36.3 kg) bag
- Slowly pour the contents of the bag(s) into the mixer
- Mix for 5 minutes until a workable consistency is achieved

State-of-the-art batching ensures total quality control

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

- Avoid over-mixing as this may affect the integrity of the finished product
- If more water is needed, add small amounts at a time and continue to mix until a desired consistency is achieved
- Do not exceed a total volume of 2 gallons (7.6 liters) of water for each 80 lb. (36.3 kg) bag
- Prepare only enough mix as can be applied in one hour
- Keep mixing times and procedures the same every batch

Silo System Mixing

1. To start, to make any size batch, place 75% of the required water in the mixer.
2. For consistent results hand mixing is not recommended, only mechanical batch mixers ensure consistency, workability and good board life.
3. With the mixer running pull open the silo handle to dispense SPEC MIX FBC into the mixer.
4. Add the remaining amount of water for the desired consistency.
5. Mix the SPEC MIX FBC for 5 minutes.
6. Keep mixing times and procedures the same every batch. Over mixing may entrain air, which can adversely affect plastic and hardened stucco properties.

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

- During application and curing, surface and ambient temperatures must be 40-100 degrees F (4-36 degrees C). Always consult your local building code officials for cold and hot weather masonry construction practices
- Do not install stucco under hot, dry or windy conditions and avoid applying SPEC MIX Fiber Base Coat Stucco in direct sunlight
- Before wet curing, allow SPEC MIX Fiber Base Coat Stucco 2-4 hours to achieve its initial set (climate sensitive)
- Moist cure for 48 hours with regular, consistent fogging spray of water
- Protect walls from rain, snow and frost for 48-72 hours

Safety

IMPORTANT! READ BEFORE USING This product contains Portland cement. Contact with freshly mixed product can cause severe burns. Avoid direct contact with skin and eyes. If this product should contact eyes, immediately flush with water for at least 15 minutes and consult a physician. For skin exposure, wash promptly with plenty of soap and water. Remove soaked clothing promptly. If this product burns your skin, see a physician immediately. This product may contain silica. Silica dust if inhaled may cause respiratory or other health problems. Prolonged inhalation may cause delayed lung injury, including silicosis and possibly cancer. A N95 approved dust mask, eye protection, and rubber boots and gloves are recommended when using this product. Material Safety Data Sheets can be viewed online at www.specmix.com

KEEP OUT OF REACH OF CHILDREN.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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 products and the patented SPEC MIX silo delivery system are available nationally with local distribution to major U.S. and Canadian markets. Contact SPEC MIX, Inc. or visit the www.specmix.com website to locate a local representative.

COST

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

7. Warranty

SPEC MIX, Inc. warrants this product to be of merchantable quality when used or applied in

accordance with the instructions hereon. This product is not warranted as suitable for any purpose or use other than the general purpose for which it is intended. Liability under this warranty is LIMITED to the replacement of its product (as purchased) if found to be defective, or at the shipping company's option, to refund the purchase price. In the event of a claim under this warranty, notice must be given to SPEC MIX, Inc. in writing. THIS WARRANTY IS ISSUED AND ACCEPTED IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND EXPRESSLY EXCLUDES LIABILITY FOR CONSEQUENTIAL DAMAGES..

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 representative or call (888) SPEC-MIX or visit the www.specmix.com website.

10. Filing Systems

- SmartBuilding Index
- 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