

## AMX 400 Portland Cement, Lime and Sand Mortar Type M, S, N



### PRODUCT DESCRIPTION

Amerimix AMX 400 Portland Cement, Lime and Sand Mortar is a factory blend of portland cement, hydrated lime and dried sand with a formulation engineered to provide long water retention, exceptional workability and superior bond strength over masonry substrates.

### MANUFACTURER

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*Amerimix products are available throughout the US and Canada. For information, please contact Amerimix at 888-313-0755.*

### USES

- Interior or exterior applications
- Above or below grade
- Laying or resetting brick, block and stone
- For all masonry veneer work

### FEATURES AND BENEFITS

- Factory blended under controlled conditions for mix consistency
- High bond strength
- Extended mortar board life, less re-tempering required
- Increased yield compared to typical field mix mortars
- May be pigmented

### PACKAGING

Available in 80 lb (36 kg) and 94 lb (42.6 kg) bags and 3,000 lb (1,360 kg) bulk bags.

### APPROXIMATE COVERAGE

One 80 lb bag yields approximately .78 cu.ft and will lay up to 12 concrete blocks or 36 standard bricks with 3/8" mortar joints or 17 sq ft of manufactured stone. One 94 lb bag yields approximately .92 cu. ft. and will lay up to 14 concrete blocks or 42 standard bricks with 3/8" mortar joints, or 20 sq ft of manufactured stone. One 3,000 bulk bag will lay up to 450 concrete blocks or 1350 standard bricks with 3/8" mortar joints.

### TECHNICAL DATA

Mortar	Average Compressive Strength psi (MPa) (ASTM C-109)	Water Retention Minimum % (ASTM C-91)	Air Content Maximum % (ASTM C-91)
Type M	28 Days 2500 (17.2)	75	12
Type S	28 Days 1800 (12.4)	75	12
Type N	28 Days 750 (5.2)	75	12

### STANDARDS

- Mortar is designed to meet the requirements of ASTM C-270 Standard Specification for Mortar for Unit Masonry and ASTM C-1714 Standard Specification for Preblended Dry Mortar Mix for Unit Masonry
- Mortar should be tested in the field by ASTM C-780 Standard Test Method for Preconstruction and Construction Evaluation of Mortar for Plain and Reinforced Unit Masonry
- Due to the procedural differences between ASTM C-270 and C-780, the compressive strength values resulting from field sampled mortars are not required nor expected to meet the compressive strength of the property specification requirements of C-270 as tested under laboratory conditions, nor do they represent the compressive strength of the mortar in the wall

### SURFACE PREPARATION

- Remove all loose particles, dirt, dust or any foreign materials that would inhibit proper bond to brick, block, stone or masonry substrate
- Certain conditions may require the substrate to be SSD (saturated surface dry) conditioned such as dry windy climates, porous substrates or high temperatures

### JOB MOCK-UPS

The manufacturer requires that when Amerimix AMX 400 Portland Cement, Lime and Sand Mortar is used in any application or as part of any system that includes other manufacturers' products, the contractor and/or design professional shall test all the system components collectively for compatibility, performance and long-term intended use in accordance with pertinent and accepted industry standards prior to any construction. Written documentation of the test performed shall be satisfactory to the design professional and contractor. Test results must include the means and methods of application, products used, project specific conditions being addressed and standardized tests performed for each proposed system or variation. Approved mock-ups or sample panels should be retained until completion of the project.

### MIXING

- Use of a mechanical mixer will help ensure a better uniform mix
- Use clean, potable water, approximately 6.5 – 7.5 quarts per 80 lb bag and 7.5 – 8.5 quarts per 94 lb bag. Pour approximately ¾ of the required amount into the mixer. When mixing from a silo, use the same approximate water ratio and follow the same procedures



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### MIXING (Cont.)

- With the mixer running, add bags of dry mortar or dispense from a silo and mix thoroughly
- A minimum of 5 minutes mixing time is recommended
- Add additional water in small amounts as necessary to achieve optimum consistency and workability Mix for a minimum of 5 minutes adding enough of the remaining water to achieve a fluid workable consistency. Caution: Adding too much water will reduce strength
- Let mix stand for 2 minutes to enable absorption of water and re-mix
- Addition of cold water at high temperature or warm water at low temperatures will aid in adjusting the set time

### CURING

- No special curing is required unless temperatures are extremely high
- In hot or windy conditions keep the mortar/stucco damp to promote adequate curing
- Drape plastic over wall to help retain moisture or mist wall in extreme heat or windy conditions
- Keep from freezing for at least 24 hours

### CLEANING

Use water to clean all tools immediately after use. Dried material may need to be mechanically removed. For cleaning mortar joints, use the least aggressive solvent to accomplish the task. Only clean, potable water should be used in the cleaning process.

### STORAGE

Store in a tightly closed container off the floor in a dry place.

### LIMITATIONS

- The type of mortar selected should be coordinated with the type of application, type of masonry units and intended use. Mortars with lesser compressive strength should be used with softer masonry units or tuck pointing applications
- The optimal temperature range for mortar application is between 40 and 90 degrees. Application outside of this range is possible when appropriate precautions for cold or hot weather construction are implemented in compliance with ACI, PCA, ASTM, IMIAC or Masonry Institute Standards
- Agitate material as necessary within its working time to maintain workability
- Do not add materials other than clean, potable water
- Water with a high mineral salt content can cause efflorescence. Efflorescence occurs naturally and is beyond the control of Amerimix
- Do not overwater. Avoid adding excessive amounts of water that promote segregation or bleeding of the mortar and loss of strength and durability
- Protect uncoated aluminum from direct contact with portland cement based materials
- Only water lost to evaporation should be replaced by re-tempering, not water lost to hydration. The re-tempering of mortar will alter color and appearance of the mortar joint and may also reduce bond and compressive strength

### LIMITATIONS (Cont.)

- Concave tooling of joints should be performed when mortar joint is thumbprint hard. For consistency of finish and color, joints should be struck with consistent timing, avoiding early or late tooling
- Shelf life not to exceed one year from date of manufacture
- Not to be used as a grout for traffic bearing surfaces

**NOTE:** Amerimix AMX 400 Portland Cement, Lime and Sand Mortar should be installed in accordance with the provisions of applicable ASTM standards and the local building code. Always follow traditional industry best practices appropriate for the application and weather conditions. Good workmanship in conjunction with proper design and detailing assures durable, efficient water-tight construction.

### SUSTAINABILITY

Amerimix products generally qualify for LEED Materials and Resources credits for Recycled Materials and Regional Materials. Visit [www.usmix.com](http://www.usmix.com) or contact Technical Services, 800-397-9903, for additional information regarding LEED qualifications for your specific product application and project location.

### SAFETY

READ THE MATERIAL SAFETY DATA SHEET (MSDS) BEFORE USING THIS PRODUCT. MSDS Sheets are available on our website [www.usmix.com](http://www.usmix.com).

### REGULATORY

Read and follow application information, precautions and Material Safety Data Information.

### Right-to-know

This product contains Portland Cement (CAS#65997-15-1) and Crystalline Silica (CAS# 14808-60-7)

### HMIS

Health 1, Fire 0, Reactivity 0

### Prop 65

Warning! This product contains Crystalline Silica, a chemical known to the State of California to cause cancer or reproductive toxicity.

### VOC Content

0 g/L

### CAUTION

#### EYE AND SKIN IRRITANT

Contains Portland Cement (CAS# 65997-15-1) and Crystalline Silica (CAS# 14808-60-7). Do not allow contact with eyes or skin. Avoid breathing dust - silica may cause serious lung problems. There is limited evidence silica is a carcinogen. The use of gloves, goggles, dust masks and other protective clothing is recommended. If cement or sand particles get into eyes, rinse immediately with clean water and seek prompt medical attention.

### ENVIRONMENTAL ADVISORY

Uncured or crushed cured cement is an environmental hazard, which may adversely affect fish and wildlife. Dispose of construction debris containing cement, including empty bags, at a permitted municipal disposal firm. Do not use crushed concrete as a fill near an aquatic habitat.



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**NOTICE OF LIMITED WARRANTY** US MIX Co. (manufacturer) warrants to buyer that this product at the time and place of shipment is of good quality and conforms to the manufacturer's specifications in force on the date of manufacture when used in accordance with the instructions hereon. Manufacturer cannot warrant or guarantee any particular method of use, application or performance of the product under any particular condition. This limited warranty cannot be extended or amended by manufacturer's sales people, distributors or representatives or by any sales information, specifications of anyone other than the manufacturer. Liability under this warranty is expressly limited to refund of the purchase price.

**LIMITATION OF WARRANTIES AND LIABILITY** Buyer assumes all risks associated with the use of this product. Manufacturer expressly disclaims all warranties expressed or implied including the warranties or merchantability and fitness for a particular purpose and all other warranties otherwise arising by operation of the law, course of dealing, custom, trade or otherwise. Buyer's exclusive remedy if this product is proven to be defective is limited to refund of purchase price by the manufacturer. Refund shall only be available if the buyer notifies manufacturer in writing within thirty days following discovery of any defect. Written notice shall be forwarded to 112 S. Santa Fe Drive, Denver, CO 80223. No claim can be made twelve months after purchase of product. Twelve months after the purchase manufacturer's duties with the respect to the product and limited warranty shall be presumed to have been satisfied. Manufacturer in no event is liable for consequential damages.