

# **AMX 470 Stone Veneer Mortar**

Product # AMX 470



#### 1. PRODUCT NAME:

Amerimix AMX 470 Stone Veneer Mortar

# 2. PRODUCT DESCRIPTION:

Amerimix AMX 470 Stone Veneer is a pre-blended mortar that is engineered and designed for exceptional bond strength to set and grout artificial stone to concrete or masonry substrates on horizontal and vertical surfaces.

#### **Features and Benefits:**

- Factory blended under controlled conditions for mix consistency
- Meets property requirements of ASTM C1714 and ASTM C270
- · High bond strength
- · Available in gray and buff

# **Uses:**

- Interior or exterior applications
- · Above or below grade
- Bonding of artificial brick or stone
- For use over substrates including: concrete, masonry, CMU, concrete block, scratch & brown coat.

NOTE: Not to be used as a grout for traffic bearing surfaces

# **LEED Eligibility:**

Regional Materials (MR-c5) Recycled Material (MR-c4)

NOTE: Amerimix products generally qualify for LEED Materials and Resources. Contact Technical Services for additional information regarding LEED qualifications for your specific product application and project location.

# Packaging:

Available in 80 lb. (36.3 kg) bags

# **Approximate Coverage:**

Bag Size / Water	Trowel Size	Coverage
80 lb. (36.3 kg) 5-6 qts. (4.7-5.8 L)	1/4" x 3/8" (6mm x 9 mm) Notched Trowel	115-125 ft. <sup>2</sup> 10.7-11.6 m <sup>2</sup>
	1/2" x 1/2" (12mm x 12 mm) Notched Trowel	75-85 ft. <sup>2</sup> 7-8 m <sup>2</sup>
	1/4" (6mm) Thick base coat	30-40 ft. <sup>2</sup> 3-4 m <sup>2</sup>
	1/2" (12mm) Thick base coat	15-20 ft. <sup>2</sup> 1.4-2 m <sup>2</sup>

NOTE: Coverage is approximate. The coverage above does not allow for waste and spillage. Avoid overwatering

# Safety:

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS sheets are available on our website Amerimix.com or you can contact CHEMTREC (24 hours availability) 800-424-9300 or contact Amerimix Technical Services at 800-334-0784.

#### 3. TECHNICAL DATA:

7 Day Bond Strength	ASTM C482	Cast Stone 150 psi @ 7 days
		Natural Stone 150 psi @ 7 days

# **Testing Notes:** mixed to a cone penetrometer reading of 50-60mm

- Mortar is designed to meet the requirements of ASTM C270 Standard Specification for Mortar for unit Masonry. This is a laboratory test procedure.
- Mortar should be tested in the field by following ASTM C780, Standard Test Method for Preconstruction & Construction Evaluation of Mortar for Plain & Reinforced Unit Masonry.
- Due to the procedure differences between ASTM C270 &
   ASTM C780, the compressive strength values resulting from
   field sampled mortars are not required nor expected to meet the
   minimum compressive strengths of the property specification
   requirements of ASTM C270 as tested under controlled laboratory
   conditions nor do they represent the compressive strength of the
   mortar in the wall.

# **Applicable Standards:**

**American Concrete Institute (ACI)** 

ACI 530.1 Specification for Masonry Structures

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#### **ASTM International (ASTM)**

- ASTM C270 Standard Specification for Mortar for Unit Masonry
- ASTM C387 Standard Specification for Packaged, Dry, Combined Materials for Mortar and Concrete
- ASTM C482 Standard Test Method for Bond Strength of Ceramic Tile to Portland Cement Paste
- ASTM C780 Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry
- ASTM C1314 Standard Test Method for Compressive Strength of Masonry Prisms
- ASTM C1586 Standard Guide for Quality Assurance of Mortar
- ASTM C1714 Standard Specification for Preblended Dry Mortar Mix for Unit Masonry

# International Masonry Industry All-Weather Council (IMIAC)

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

# **National Concrete Masonry Association (NCMA)**

- NCMA TEK Bulletin #8-2A Removal of Stains from Concrete Masonry
- NCMA TEK Bulletin #8-3A Control and Removal of Efflorescence

# 4. PRE-CONSTRUCTION GUIDELINES Job Mock-Ups:

Amerimix requires that when Amerimix AMX 470 Stone Veneer 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.

# 5. INSTALLATION

# Preparation:

- The optimal temperature range for mortar application is between 40°F and 90°F (4°C and 32°C). Applications outside of this range is possible when appropriate precautions for cold or hot weather construction are implemented in the compliance with ACI, PCA, ASTM, IMIAC, or Masonry Institute standards.
- Clean area and remove all unsound concrete, mortar, grease, oil, dirt, paint, sealers and any other foreign material that will inhibit performance.
- Protect uncoated aluminum from direct contact with portland cementbased materials by coating it with a protective coating such as a primer or paint.
- Certain conditions may require the substrate to be SSD (saturated surface dry) conditioned such as dry windy climates, porous substrates, or high temperatures.

- All surfaces to receive the Amerimix AMX 470 Stone Veneer Mortar are
  to be hard, dry, sound and able to support the weight of the stone or
  brick. The substrate deflection must be verified to not exceed industry
  standards of L/600 under live, dead or impact loads.
- Concrete and masonry substrates must be cured a minimum of 7 days before artificial stone or brick can be applied.
- When applying mortar as a scratch coat over metal reinforcement (for wood frame construction) as a mechanical bond, allow a minimum of 24 hours to cure. Metal reinforcement must be properly fastened to assure its ability to hold the weight of the stone being installed.
- Mortar selection should be approved based on written specification and local building code requirements.
- Evaluation of the mortar and masonry unit being specified should be tested to assure compatibility prior to the start of construction. A job mock up is recommended as stated below.
- Shelf life not to exceed one year from date of manufacture.

# Mixing:

- 1. Use of a mechanical mixer will help ensure a better uniform mix.
- 2. Use approximately 5–6 qts (4.7–5.8L) of clean potable water per 80 lb (36.3 kg) bag. Pour approximately 3/4 of the required amount into the mixer.
- 3. With the mixer running, add bags of dry mortar and mix thoroughly.
- 4. 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 workable consistency.
- a. Caution: Adding too much water will reduce strength. Do not add materials other than clean potable water.
- 5. Let mix stand for 2 minutes to enable absorption of water and re-mix.
- 6. Mortar should always be mixed to a firm, moist consistency. A mix that is too dry and crumbly will not provide the proper bond. AVOID A SOUPY MIX. Mortar that is too wet will be weak and will not provide an adequate bond to the substrate, can cause sagging, and will not be able to hold the weight of the stone.
- 7. Addition of cold water at high temperatures or warm water at low temperatures will aid in adjusting the set time.
- 8. Water with a high mineral salt content can cause efflorescence.

  Efflorescence occurs naturally and is beyond the control of Amerimix.

#### **Application:**

- 1. Determine the amount of stone needed by measuring the length x the height for walls or length x width for horizontal surfaces to find the square footage of the area to be covered.
- 2. AMX 470 Stone Veneer Mortar can be used for individual artificial stones up to 1' x 1' in size and up to 7 lbs. (3.1 kg) in weight.
- 3. Agitate material as necessary within its working time to maintain workability.
- 4. Trowel a thin layer of mortar on the substrate.

  Apply a thick layer of mortar to the back of each stone.
- 5. Coverage of mortar to adhere stone must be 95% to assure performance.
- 6. When installing large stone on a vertical surface, apply a thick ring of mortar around the back of each stone, leaving a void in the center to create a vacuum as you press the stone into place. Start at the bottom of the wall and brace each stone as you go up.

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- 7. Allow the mortar to squeeze out around the stone's edges. In wall applications, place temporary shims if needed between the stones until the mortar sets to maintain even spacing between the stone.
- 8. After placing the stone and the mortar has set to thumbprint hard (about 1 hour), remove the shims. Use a grout bag or pointing trowel to fill in the joints where additional mortar is needed.
- Use a metal jointing tool, compact and seal edges around the stone and rake out excess mortar. Brush loose mortar from the surface and joints to clean stones.

NOTE: Refer to "Installation Guidelines for Adhered Concrete Masonry Veneer"

- Place expansion joints following industry standards and as specified for the project.
- · Expansion joints in the substrate must be honored through the veneer.

# **Notched Trowel Application Method:**

- 1. Apply the AMX 470 Stone Veneer Mortar to the substrate with the flat side of the notched trowel assuring that a sufficient amount of material is keved well onto the substrate.
- 2. Comb the AMX 470 Stone Veneer Mortar with the 1/4" x 3/8" (6mm x 9mm) or 1/2" x 1/2" (12mm x 12mm) notch trowel assuring that the square edges are full and square.
- 3. Back butter the stone to assure full bedding of mortar between the stone and substrate.
- 4. Place the stone onto the combed substrate sliding into position. This will assure full contact of mortar.
- 5. Clean excess mortar from the sides of the stone veneer.
- 6. Check mortar periodically during installation by removing a stone to assure coverage is consistently full.

NOTE: Selection of the proper size notch trowel is important to assure a full setting bed between the substrate and the stone. Shims, wedges, or spacers may be required for the assurance of maintaining a level installation.

NOTE: Amerimix AMX 470 Stone Veneer 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, watertight construction.

#### **Curing:**

Loss of surface water may occur quickly due to higher ambient air temperatures and windy conditions. Fog spray as needed. Protect from rain and freezing for 24 hours.

# Cleaning:

- Use water to clean all tools immediately after use.
- Dried material must be mechanically removed.
- Only clean potable water should be used in the cleaning process.

#### Safety:

READ and UNDERSTAND the Material Safety Data Sheet (MSDS) before using this product. WARNING: Wear protective clothing and equipment. For emergency information, call CHEMTREC at 800-424-9300. KEEP OUT OF REACH OF CHILDREN.

#### **6. AVAILABILITY**

Amerimix products are available throughout the US and Canada. For more information, contact Amerimix at:

Toll-Free: 866-725-7383 Website: Amerimix.com

#### 7. TECHNICAL SUPPORT

For technical assistance please contact us at: Toll-Free: 866-725-7383

#### 8. WARRANTY

#### **What Does This Warranty Cover?**

The manufacturer warrants that this product shall be of merchantable quality when used or applied in accordance with the manufacturer's instructions. This product is not warranted as suitable for any purpose other than the general purpose for which it is intended. This warranty runs for one (1) year from the dates the product is purchased. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMTED TO THE DURATION OF THIS WARRANTY. Liability under this warranty is limited to replacement or defective products or, at the manufacturer's option, refund of the purchase price. CONSEQUENTIAL AND INCIDENTAL DAMAGES ARE NOT RECOVERABLE UNDER THIS WARRANTY.

#### **How Long Does Coverage Last?**

This warranty lasts for a period of one (1) year from the date of purchase. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

#### **What Will Amerimix Do to Address Problems?**

Amerimix will replace the defective product or refund the purchase price, at its option.

# **What Does This Warranty Not Cover?**

Amerimix will not be liable for damage or loss resulting from a failure to store, use, install or maintain the product in strict accordance with Amerimix's specifications and instructions. In no event will Amerimix be liable for damages in excess of the purchase price for the product. CONSEQUENTIAL, SPECIAL AND INCIDENTAL DAMAGES ARE NOT RECOVERABLE UNDER THIS WARRANTY. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

# **How Do I Get Warranty Service?**

Within thirty (30) days after discovering a defect in the product, contact Amerimix in writing at the following address:

Amerimix Technical Support Group

625 Griffith Road - Suite 100

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Charlotte, NC 28217

Include with your letter a brief description of the problem and any sales receipt, invoice or other proof of the date of purchase. To obtain Amerimix's technical or sales literature, please call (888) 313-0755 or visit our website at Amerimix.com

# **How Does State Law Relate to This Warranty?**

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### DANGER:

This product contains Crystalline Silica and Portland Cement which are known to cause cancer, eye damage, lung disease, respiratory damage, silicosis, skin burns, and other serious medical conditions. Harmful if swallowed and corrosive.

#### **CAUTION:**

Do not handle or use this product until you review and understand the instructions, including the safety precautions. The applicable safety precautions include wearing protective clothing, protective eyewear, protective footwear, protective gloves, and respiratory protection when handling or working around this product. Protective clothing should include face protection, impervious gloves, long pants, and a long-sleeved shirt. Eye and respiratory protection must comply with the guidelines of the Occupational Health and Safety Administration (OSHA). Do not breathe or otherwise ingest the dust from this product. Wash hands and clothing after handling or working around this product. This product should only be used outdoors or in a well-ventilated area and the user should avoid creating dust. Dispose of unused concrete products in accordance with applicable law. Review the Safety Data Sheet, which is available online at www.sakrete.com, prior to handling or using this product.

# KEEP OUT OF REACH OF CHILDREN.

#### FIRST AID:

Seek medical attention if you experience skin burns or irritation. If you injest this product, rinse your mouth with water and seek medical attention if you feel ill. In the event of eye irritation, remove any contact lenses and carefully rinse eyes with water for several minutes. If eye irritation persists, seek medical attention. If inhaled, relocate to an area with fresh air and seek medical attention if you feel ill.

#### **WARNING:**

This product can expose you to chemicals including Crystalline Silica, which is known to the State of California to cause cancer, and Lithium Carbonate, which is known in the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

#### **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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