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AC Submittal # _____

Arteaga Construction, Inc. Product Submittal

Date Submitted: _____ Pages Submitted: _____

To: _____

Project: _____

Architect: _____

Section: _____ Paragraph: _____

Description: _____

Product Submittal: _____

Manufacturer: _____

Submittal Includes: _____

Supplier: _____

Remarks: _____

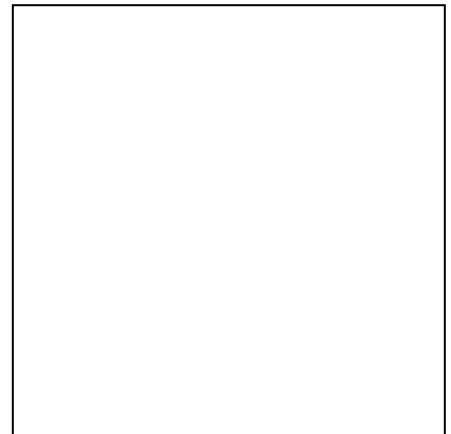
FOR USE BY THE ARCHITECT AND/OR ENGINEER

Approved *Approved as Noted* *Not Approved*

(Why?) _____

By: _____ Date: _____

Remarks: _____





04 DIVISION
MORTAR

TUCKPOINT MORTAR



Increased Bond. Reduced Shrinkage.

SPEC MIX® Tuckpoint Mortar is a dry preblended mortar mix containing portland cement, hydrated lime and dried masonry sand formulated for superior bond, water retention and board life. The mix design incorporates the maximum amount of lime for optimal bond to the masonry unit to permit the pointed wall to expand and contract, while mitigating the occurrence of potential cracking and spalling that is common with inflexible, high strength mortars. SPEC MX Tuckpoint Mortar is thoroughly pretested to ensure it meets ASTM C 270, ASTM C 1714 and CSA A179 requirements. SPEC MIX Tuckpoint Mortar is available in standard or custom colors. In addition to custom mix designs that are available for specific applications or properties, the standard Tuckpoint Mortar is designed to be compatible with the characteristics of the specified masonry unit. It is acceptable for all types of masonry construction.

SPEC MIX Tuckpoint Mortar 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. Submittals are available upon request for certification to applicable ASTM, TMS, and CSA standards.

TYPICAL MATERIALS

PORTLAND CEMENT
HYDRATED LIME
SAND
PIGMENT



STANDARD (TP-01)
COLOR (TP-05)

AVAILABLE
IN COLOR

TUCKPOINT MORTAR

INSTALLATION/APPLICATION

For optimal results, grind the mortar joint to be repaired back 3/4 in (19 mm) and ensure that the receiving surface is free of dust and debris.

A sample of the proposed product will be provided by the manufacturer for architectural approval and testing, if required. Preparation of a panel with all materials and systems employed in the final project is imperative. Retain the mock-up or field sample through the completion of the project.

Allow mortar to cure a minimum of 7 days but no more than 28 days before cleaning. Consult manufacturer of the masonry units and cleaning chemicals for further instructions to ensure proper washing procedures.

Clean masonry only with a national proprietary cleaning agent (following the manufacturer's instructions) or potable water. SPEC MIX products must be kept dry, covered, and protected from weather and other damage.

SIZES AND EQUIPMENT

SPEC MIX Tuckpoint Mortar is available in 80 lb (36.2 kg) packages for easy hand loading or in 3,000 lb (1,360.7 kg) reusable bulk bags to be used with the various SPEC MIX silo systems. When using the silo system, once the bulk bags of mortar are delivered to the project site, the portable silo is loaded with a jobsite forklift and the product is dispensed into a mechanical batch mixer.

MIXING INSTRUCTIONS

WEAR IMPERVIOUS GLOVES, such as nitrile.

- Mixing is best accomplished by using a mechanical mixer to ensure optimal workability and performance.
- Use clean, potable water; add the amount of water consistent with optimum workability which provides adequate water to satisfy the initial rate of absorption of the masonry units.
- Mix for five minutes. Let the mortar stand for prehydration according to job specifications and local building codes. Add sufficient water to bring the mortar to the proper consistency for tuckpointing, somewhat drier than mortar used for laying the units.
- Maintain the same mixing procedures to maintain consistency throughout the project.
- Tool mortar joints when the surface is thumb-print hard. Keep tooling times consistent.
- Hand mix mortar only with written approval by the specifier who should outline procedures.
- Use mortar within 2.5 hours after initial mixing.
- Retemper mortar only when mixing water is lost due to evaporation.

ASTM C 270 PROPERTY SPECIFICATIONS (laboratory prepared)

Type	Average compressive strength at 28 days, minimum PSI	Water retention, minimum %	Air content, maximum %
N	750 PSI	75	14
0	350 PSI	75	14

CSA A179 PROPERTY SPECIFICATIONS (laboratory prepared)

Type	Minimum compressive strength at 28 days, MPa	Water retention, minimum %	Air content, maximum %
N	5 MPa	70	18
0	2.5 MPa	70	18

ESTIMATED YIELDS

Joint Thickness:	Coverage on Modular Brick per 80 lb (36.2 kg) Bag		
	3/8 in (9.5 mm)	1/2 in (13 mm)	5/8 in (16 mm)
1/2 in (13 mm) Grind Depth	85 to 95 ft ² (7.9 to 8.8 m ²)	65 to 70 ft ² (6.0 to 6.5 m ²)	52 to 56 ft ² (4.8 to 5.2 m ²)
3/4 in (19 mm) Grind Depth	55 to 65 ft ² (5.1 to 6.0 m ²)	40 to 45 ft ² (3.7 to 4.2 m ²)	33 to 37 ft ² (3.0 to 3.4 m ²)
Joint Thickness:	Coverage on Modular Brick per 3,000 lb (1,360.7 kg) Bag		
	3/8 in (9.5 mm)	1/2 in (13 mm)	5/8 in (16 mm)
1/2 in (13 mm) Grind Depth	3,185 to 3,560 ft ² (296 to 331 m ²)	2,435 to 2,625 ft ² (226 to 244 m ²)	1,950 to 2,100 ft ² (181 to 195 m ²)
3/4 in (19 mm) Grind Depth	2,060 to 2,435 ft ² (191 to 226 m ²)	1,500 to 1,685 ft ² (139 to 156 m ²)	1,235 to 1,385 ft ² (115 to 129 m ²)

Note: The yields given above are approximate and depend on labor practices, site conditions and design of work. Yields include typical waste. Some areas such as FL, CA, OR, and WA experience higher yields due to construction practices. Please contact your local representative for more specific yield information in your area.

Note: Each 80 lb (36.2 kg) bag yields approximately 1,296 cu in (21.2 L) of wet mortar.



- Whenever possible, do not retemper colored SPEC MIX masonry mortars by adding additional water; retempering may affect color consistency.

LIMITATIONS

SPEC MIX Tuckpoint Mortar should be installed in accordance with the provisions of the local building code and applicable ASTM standards. Good workmanship coupled with proper detailing and design assures durable, functional, watertight construction. Follow proper cold-weather and hot-weather masonry procedures at temperatures below 40 °F (4 °C) or above 100 °F (38 °C) respectively.

LIMITED WARRANTY

IN THE UNITED STATES

NOTICE: Obtain the applicable LIMITED WARRANTY at www.specmix.com/product-warranty or send a written request to SPEC MIX, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA.

AVISO: Obtenga la GARANTÍA LIMITADA correspondiente en www.specmix.com/product-warranty o envíe una solicitud por escrito a SPEC MIX, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA.

IN CANADA

NOTICE: Obtain the applicable LIMITED WARRANTY at www.specmix.com/product-warranty or send a written request to SPEC MIX, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA.

AVIS: Obtenez la GARANTIE LIMITÉE applicable sur www.specmix.com/produit-garantie. Ou envoyez une demande écrite à SPEC MIX, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA.

TECHNICAL SUPPORT

- CONTACT YOUR LOCAL SPEC MIX® MANUFACTURER
- VISIT WWW.SPECMIX.COM
- CONTACT SPEC MIX®
PHONE: 888-733-2649 FAX: 651-454-5315



Product Certification Letter

February 1, 2022

Product Description: 80 lb / 3000 lb SPEC MIX® TP-01 Tuckpoint Mortar
Item Number: 19031 / SM19031

To: Whom It May Concern

This letter certifies that SPEC MIX® TP-01 Tuckpoint Mortar meets the requirements of ASTM C1714, *Standard Specification for Preblended Dry Mortar Mix for Unit Masonry*, and the *property* specifications for an ASTM C270, *Standard Specification for Mortar for Unit Masonry, Type O Mortar*.

The raw materials used in this product formulation meeting the standard specifications may include: Portland Cement meeting ASTM C150, *Standard Specification for Portland Cement*, Blended Cement meeting ASTM C595, *Standard Specification for Blended Hydraulic Cement*, Hydrated Lime meeting ASTM C207, *Standard Specification for Hydrated Lime for Masonry Purposes*, and Mason Sand meeting ASTM C144, *Standard Specification for Aggregate for Masonry Mortar*.

It is available as a standard gray, as well as in a variety of standard and custom colors. For custom colors, or versions with integral water repellent, the finished product item number will vary from the base design item number above depending upon the integral water repellent and / or specific pigment. These versions will also meet the specifications described above.

Mortar property characteristics including compressive strength are specified according to ASTM C270 with laboratory testing. ASTM C270 (property specification) is not for use to specify minimum compressive strengths to be achieved by field mixed mortars. Field mixed mortar may be tested according to ASTM C780 to evaluate mortar properties such as mortar water content or consistency. As defined in ASTM C1586, compressive strength values determined through ASTM C780 in the field are **not expected nor required** to achieve the compressive strengths of laboratory tested ASTM C270 specification mortars.

We are pleased to be of service to you. If you have any questions, please let us know.

Certified by:

THE QUIKRETE® COMPANIES, LLC
Technical and Engineering Center
500 Marathon Parkway
Lawrenceville, GA 30046
770.216.9580 • www.quikrete.com
651.994.7120 • www.specmix.com



Material Test Report

Product Description:	SPEC MIX® TP-01 Tuckpoint Mortar
Item Number:	19031 / SM19031
Manufacturing Plant:	QUIKRETE® - Wisconsin

Sample Identification

Initial Testing

Test Complete:	11/2/2021	Test	Specification	Result
Lab Code:	21-1193	Water (%)	As required	17.2
		Consistency (%)	105 - 115 @25d	106
		Unit Weight (lb/cu ft)	1	123.4

Strength Testing

Test	Compressive Strength (PSI)	
Age	Specification	Result
7 day	1	530
28 day	350	1170

Other Testing

Test	Specification	Result
Water Retention (%)	>= 75	77.4

(1) A value of 1 indicates that the property is being measured but no minimum value has been set

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Consistent custom colored mortar, every time

1. Product Name

- SPEC MIX® Portland Lime & Sand Mortar
URL: [Portland Lime & Sand](#)
- SPEC MIX Masonry Cement & Sand Mortar
URL: [Masonry Cement & Sand Mortar](#)
- SPEC MIX Mortar Cement & Sand Mortar
URL: [Mortar Cement & Sand Mortar](#)
- SPEC MIX Tuckpoint Mortar
URL: [Tuckpoint Mortar](#)
- SPEC MIX Colored Mortar
URL: [Colored Mortar](#)
- SPEC MIX Integral Water Repellant Mortar (IWR)
URL: [IWR](#)
Videos: [Masonry Solutions](#)

2. Manufacturer

SPEC MIX, Inc.
1230 Eagan Industrial Road
Suite 160
Eagan, MN 55121
Phone: (888) 773-2649
(651) 994-7120
Fax: (651) 454-5315
E-mail: info@specmix.com
Web: www.specmix.com

3. Product Description

Basic Use

- **Portland Lime and Sand**—a preblended masonry mortar mix containing Portland cement, hydrated lime and dried masonry sand available in standard and custom colors
- **Masonry Cement and Sand**—a preblended masonry mortar mix containing mason cement and dried masonry sand, available in standard and custom colors
- **Mortar Cement and Sand**—a dry, preblended mortar mix containing mortar cement and dried masonry sand, available in standard and custom colors
- **Tuckpoint Mortar**—a preblended masonry mortar mix containing dried masonry sand and either Portland cement and hydrated lime or mason cement, as specified; specifically formulated for superior bond, water retention and board life

- **Integral Water Repellent (IWR) Mortar**—a dry preblended masonry mortar mix containing Portland cement, hydrated lime or masonry or mortar cement and dried masonry sand; formulated for water repellency, superior bond, water retention and board life and meets compressive strength requirements, available in standard and custom colors

Available in Type M, S, N or O, SPEC MIX masonry mortars are packaged dry and offer batch-to-batch consistency. They are suited for all types of masonry construction, including above grade, below grade, brick, block, stone and historical restoration. Produced under strict manufacturing standards, SPEC MIX quality mortars deliver optimal compressive and tensile bond strengths.

Composition & Materials

SPEC MIX products are manufactured with the finest available raw materials, meeting the requirements of ASTM C144, C207, C91, C150, C595, C1072, C1329 C1384, E514 and E518. The final product is certified to meet the requirements of ASTM C270 and ASTM C1714.

SPEC MIX products are manufactured locally across the United States and Canada using specialized blending equipment and following strict quality control procedures to meet project specifications, contractor expectations and applicable ASTM standards. Test reports and additional product information from each local manufacturing facility upon request. SPEC MIX mortar mix designs are proprietary information.

Colored Mortar

SPEC MIX uses the strongest and most stable pigments available. Colors, produced from high quality pigments made



Aesthetic and structural performance, every project

of finely milled synthetic iron oxides, are limeproof, sunfast, inert, stable and meet or exceed ASTM C979 criteria.

In order to consistently achieve the desired mortar color, SPEC MIX incorporates pigment into the mortar during the factory blending process. Components of the finished product, including the pigments, are individually weighed and are then blended and packaged dry to ensure the colored mortar is consistent from batch to batch. This is the optimal means for quality control since the product is environmentally safe and requires no field measuring. Mix times for SPEC MIX colored mortars are 4–5 minutes.

Sizes

SPEC MIX masonry mortars and colored mortars are available in 80 pound (36.3 kg) packages for easy hand loading. For increased jobsite efficiency and safety, they are also offered in 3000 pound (1360.8 kg) bulk bags for use with any SPEC MIX material delivery system.

Colors

SPEC MIX colored masonry mortars cover the full range of the color spectrum: brown, buff, tan, black, yellow, orange, red and white. Each color is custom matched and handled on an individual basis to meet the architect's expectations.

Benefits

- A state-of-the-art batching process and strict quality control procedures help ensure that the finished product complies to design and specification requirements
- Dried sands eliminate the bulking effect associated with varying degrees of moisture within the aggregate, helping to maintain batch-to-batch consistency
- Portable SPEC MIX silos are available to permit construction in all climates

- Pallets and bulk bag containers are completely reusable and are retrieved when a new load of material is delivered to a site
- Preblended product eliminates shoveling and heavy lifting associated with field mixing

Limitations

- For best results, mortar type should be correlated with the specific masonry unit to be used
- Bond strength, workability and water retention should be given principal consideration when selecting mortar
- Retempering colored mortar is not recommended
- Colored mortar should be discarded after 2½ hours from the time of initial mixing

4. Technical Data

Applicable Standards

American Concrete Institute (ACI)

- ACI 530.1—Building Code Requirements and Specification for Masonry Structures and Related Commentaries

American Society for Testing and Materials (ASTM)

- ASTM C91—Standard Specification for Masonry Cement
- ASTM C 1072—Standard Test Method for Measurement of Masonry Flexural Bond Strength
- ASTM C1384—Standard Specification for Admixtures for Masonry Mortars
- ASTM C 514—Standard Test Method for Water Penetration and Leakage Through Masonry
- ASTM E518—Standard Test Methods for Flexural Bond Strength of Masonry
- ASTM C144—Standard Specification for Aggregate for Masonry Mortar



State-of-the-art batching for quality assurance

- ASTM C150—Standard Specification for Portland Cement
- ASTM C207—Standard Specification for Hydrated Lime for Masonry Purposes
- ASTM C270—Standard Specification for Mortar For Unit Masonry
- ASTM C387—Standard Specification for Packaged, Dry, Combined materials for mortar and concrete
- ASTM C595—Standard Specification for Blended Hydraulic Cements
- ASTM C780—Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry
- ASTM C979—Standard Specification for Pigments for Integrally Colored Concrete
- ASTM C1093—Standard for Accreditation for testing agencies for unit masonry
- ASTM C1157—Standard Performance Specification for Hydraulic Cement
- ASTM C1314—Standard Test Method for Compressive Strength of Masonry Prisms
- ASTM C1329—Standard Specification for Mortar Cement
- ASTM C1586—Standard Guide for Quality Assurance of Mortars
- ASTM C1714—Standard Specification for Preblended Dry Mortar Mix for Unit Masonry

International Masonry Industry All-Weather Council (IMIAC) - Recommended Practices and Guide Specification for Hot and Cold Weather Masonry Construction



Patented Mortar Delivery System

Notes

- Test method C780 is acceptable for preconstruction and construction evaluation of mortars for plain and reinforced unit masonry
- There is no ASTM method for determining the conformance or nonconformance of a field prepared mortar to the property specification of ASTM C270
- Compressive strength values resulting from field tested mortars do not represent the compressive strength of mortar as tested in the laboratory or of the mortar in the wall. Physical properties of field sample mortars should not be used to determine compliance with ASTM C270, which is intended as criteria to determine the acceptance or rejection of the mortar

Environmental Considerations

Most SPEC MIX products are produced and manufactured with local raw materials that are extracted within 500 miles of the jobsite and meet their respective ASTM standards. Only specially-ordered raw materials can be sourced greater than 500 miles from the project jobsite. Empty bags and wooden pallets are returned to the plant for reuse, reducing landfill impact. SPEC MIX products may contain recycled materials. Use of SPEC MIX products can contribute points toward LEED® project certification.

5. Installation

Preparatory Work

Deliver products in manufacturer's original, unopened, undamaged containers, with identification labels intact. SPEC MIX products are custom packaged to meet specification requirements. Handle and store products according to SPEC MIX recommendations. Keep dry, covered and protected from the weather and other environmental hazards that could cause damage. When stored and protected as recommended, SPEC MIX products have a 9 month shelf life.

Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected.

The mortar type should correlate to the particular masonry unit to be used, as certain mortars are compatible with certain masonry units. The specifier should evaluate the interaction of the mortar type and masonry unit specified. Masonry units with a high initial rate of absorption will have greater compatibility with mortar of high water retention.

The material properties that influence the structural performance of masonry are compressive strength, bond strength and elasticity. Since the compressive strength of masonry mortar is of less importance than bond strength, workability and water retentivity, the latter should be given priority in mortar selection.

Mortar selection should be based on design requirements and with due consideration given to the code and specification provisions affected by the mortar selected.

Mock-ups

A sample of the proposed product will be provided by the manufacturer for onsite preparation of a sample panel for architectural approval and testing, if required. Preparation of this panel with all materials and systems that will be employed in the final project is imperative. Retain the mock-up or field sample through the completion of the project.

Methods

Mixing Instructions:

1. Use a mechanical batch mixer to ensure homogeneity, workability and good board life.
2. Add the minimum amount of clean, potable water for optimum workability.
3. Mix for five minutes consistently from batch to batch.
4. Tool mortar joints when the surface is thumb-print hard; keep tooling times consistent.
5. Hand mix mortar only with written approval by the specifier who should outline procedures.
6. Use mortar within 2½ hours after initial mixing.
7. Retemper mortar only when mixing water is lost due to evaporation.
8. Do not retemper colored mortar

Precautions

Usage

- Use of a batch type mixer and a mixing time of 4–5 minutes is required for best results
- The finished color should not be analyzed until after 7 days and after specified cleaning procedures have been followed consistent with the mock-up panel
- Uniform color requires consistent material proportioning
- Maintain uniform mix times and water addition rates
- Tool mortar joints when surface is thumbprint hard and keep tooling time consistent
- Do not strike joints too early or too late, as the color will not remain consistent with the mock-up panel
- Retempering colored mortar by adding additional water is not recommended
- Hand mixing of the mortar should be permitted only with the written approval of the specifier, who should outline hand-mixing procedures
- Mortar should be cured a minimum of 28 days
- When using water in the cleaning procedures, use potable water only
- Do not clean colored mortar with muriatic acid

Safety

IMPORTANT! READ BEFORE USING. WEAR IMPERVIOUS GLOVES, such as nitrile.

WARNING: CAN CAUSE SERIOUS INJURY TO SKIN AND EYES. 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. 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 and birth defects or other reproductive harm.

Building Codes

Current data concerning building code requirements and product compliance may be obtained from SPEC MIX technical support specialists. Installation and use of SPEC MIX products must comply with the requirements of applicable local, state and national code jurisdictions.

6. Availability & Cost

Availability

SPEC MIX products are produced locally across the United States and Canada, using high tech blending equipment and following strict quality control procedures to meet project specifications, contractor expectations and applicable ASTM standards. SPEC MIX masonry mortars and SPEC MIX silo delivery systems are available nationally, with local distribution to every major U.S. and Canadian market. Contact SPEC MIX, Inc., for information or visit www.specmix.com/locator to locate a local representative.

Cost

Market pricing and installed cost information may be obtained from a local SPEC MIX representative.

7. Warranty

Limited 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 at: One Securities Centre, 3490 Piedmont Road, Suite 1300, Atlanta, GA 30305. THIS LIMITED WARRANTY IS ISSUED AND ACCEPTED IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND EXPRESSLY EXCLUDES LIABILITY FOR CONSEQUENTIAL DAMAGES.

8. Maintenance

Properly mixed and installed masonry units and mortar require little maintenance. Depending on service conditions, masonry walls may require periodic cleaning and tuck-pointing. Clean masonry with potable water only. Do not use muriatic acid to clean colored mortar.

9. Technical Services

SPEC MIX is produced under strict manufacturing standards and complete quality control is in effect with each batch. A digital printout displaying the proper proportions per batch may be kept as a permanent record and produced if requested. Only SPEC MIX offers this lab controlled production system for preblended masonry materials on a national basis. Contact SPEC MIX, Inc., or a local SPEC MIX representative for information.

10. Filing Systems

- Additional product information is available from the manufacturer upon request