

GUIDE SPEC

SECTION 04 05 03

Masonry Mortaring and Grouting

SECTION 04 05 03 - MASONRY MORTARING AND GROUTING

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes mortar for masonry.
- B. Related Sections – 04 01 00 Maintenance of Masonry.

1.2 SUBMITTALS

- A. Samples: Submit two samples of mortar (in addition to the required mock-up), comparable in size to the mortar joint, illustrating mortar color and color range.

1.3 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 530 Building Code Requirements for Masonry Structures and ACI 530.1 Specification for Masonry Structures.
- B. Perform Work in accordance with State, Municipality of [City Name], and [County Name] Department of Public Work's standards.
- C. Reference: 04 01 00 Maintenance of Masonry, Part I General, Section 105 Quality Assurance for further information.
- D. Maintain one copy of each document on site.

1.4 ENVIRONMENTAL REQUIREMENTS

- A. Cold Weather Requirements: In accordance with ACI 530.1 when ambient temperature or temperature of masonry units is less than **40 degrees F (4 degrees C)**.
- B. Hot Weather Requirements: In accordance with ACI 530.1 when ambient temperature is greater than **100 degrees F (38 degrees C)** or ambient temperature is greater than **90 degrees F (32 degrees C)** with wind velocity greater than **8 mph (13 km/h)**.

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PART 2 PRODUCTS

2.1 MORTAR

- A. Manufacturers:
1. US Heritage Group, Inc. Model – Heritage Pre-Blended Lime putty Mortar.
 2. Substitutions: Permitted – Approved equal or better.

2.2 COMPONENTS

- A. Mortar Aggregate: ASTM C144, **to match existing historic mortar as per lab analysis results.**
- B. Hydraulic Lime.
- C. Mortar Color: Color to match existing mortar color as per lab analysis results.
- D. Grout Aggregate: ASTM C404, reference mortar lab analysis report.
- E. Water: Clean and potable.
- F. Calcium chloride is not permitted.

2.3 MIXES

- A. Mortar Mixes:
1. Mortar for Face Brick Masonry: US Heritage Group, Inc., Heritage Pre-Blended Lime Putty Mortar, 1 part hydraulic lime and 2.5 parts clean, sharp sand (to match historic mortar (as per lab analysis) in color, aggregate, appearance, and composition). **[Need final lab results.]**
 2. Mortar for Indiana Limestone Masonry: US Heritage Group, Inc., Heritage Pre-Blended Lime Putty Mortar, 1 part hydraulic lime and 2 parts clean, sharp sand (to match historic mortar (as per lab analysis) in color, aggregate, appearance, and composition). **[Need final lab results.]**
 3. Substitutions: Approved equal or better.
- B. Mortar Mixing:
1. Thoroughly mix mortar ingredients in accordance with ASTM C270 in quantities needed for immediate use... or Pre-blended US Heritage Group mortar will arrive on site in sealed pre-mixed containers.

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2. Water component to be added as per manufacturer's recommendations and instructions.
3. Re-temper as per manufacturer's recommendations only.
4. Mixing of individual mortar ingredients on site will not be permitted.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install mortar in accordance with Section 04 01 00 and the attached US Heritage Group Installation Guidelines and Procedures for Lime Putty and Hydraulic Lime Mortars for Repointing Applications.

3.2 FIELD QUALITY CONTROL

- A. Testing Frequency: One set of specified tests for every 5,000sf (465 sq m) of completed wall area.
- B. Testing of Mortar Mix: In accordance with ASTM C780.

END OF SECTION