

Brickwork Design Profile

Standard Mortar Specifications For Glen-Gery Color Mortar Blend

SECTION 04100* MORTAR FOR UNIT MASONRY

Part I General

1.01 Related Work Specified Elsewhere

- | | |
|---------------------------------------|----------------|
| A. Grout | Section 03370* |
| B. Masonry | |
| Accessories: | Section 04150* |
| C. Unit Masonry: | Section 04200* |
| D. Stone: | Section 04400* |
| E. Masonry Restoration
& Cleaning: | Section 04500* |

1.02 Quality Assurance

- A. Standards
- 1) American Society for Testing and Materials.
 - a) ASTM C144, Aggregate for Masonry Mortar.
 - b) ASTM C150, Portland Cement
 - c) ASTM 207, Hydrated Lime for Masonry Purposes
 - d) ASTM C270, Mortar for Unit Masonry
 - e) ASTM C979, Pigments for Integrally Colored Concrete
 - 2) Brick Institute of America
 - a) BIA M1-88, Mortar for Unit Masonry
 - 3) International Masonry Industry All Weather Council
 - a) IMIAC, Recommended Practices and Guide Specifications for Cold Weather Masonry Construction.
- B. Use same manufacturers' component products throughout project.
- C. Construct field panels with locally available sands to verify mortar color before and during construction.

1.03 Submittals

- A. Manufacturer's certification that materials meet specification requirements.

- B. Submit details, including the manner in which the sand will be measured, of the method of mixing the mortar to the (Architect) (Engineer) prior to the beginning of the work.

1.04 Product Delivery, Storage and Handling

- A. Deliver and store manufactured products in original unopened containers.
- B. Store cementitious ingredients in weather-tight enclosures, protect against contamination and warehouse set and store off the ground.
- C. Stock pile and handle aggregates to prevent contamination from foreign materials.
- D. Keep water free of harmful materials.

1.05 Environmental Requirements

- A. To assure mortar temperatures between 40°F and 120°F until used, heat mixing water or aggregates when air temperature is between 32°F and 40°F. When the temperature is between 25°F and 32°F, heat both water and aggregate.
- B. Produce subsequent mortar batches within +/-10°F of first batch.
- C. Do not heat water or sand above 160°F.

Part II Products

2.01 Acceptable Manufacturers

- A. Glen-Gery Corporation

2.02 Materials

- A. Mortar mix shall consist of prepackaged blend of portland cement, hydrated lime, and mineral oxide pigments.

- 1) Portland Cement: ASTM C 150 (Type I) (Type II) (Type III).
- 2) Hydrated Lime: ASTM C 207, Type S.
- 3) Mineral Oxide Pigments: ASTM C 979.

- B. Sand shall conform to the requirements of ASTM C 144, except that the grading shall comply with the following limits:

Sieve Size	% Passing
No. 4	100
No. 8	95 to 100
No. 16	60 to 100
No. 30	35 to 70
No. 50	15 to 35
No. 100	2 to 15
No. 200	0 to 2

- C. Water: Clean and potable

2.03 Mortar Color

- A. G () Glen-Gery Color Mortar Blend. Color Mortar Blend shall be colored with mineral oxide pigments. In general, the proportion of pigments shall not exceed 10% of the weight of the portland cement.

2.04 Admixtures

- A. Calcium Chloride: Calcium chloride or admixtures containing calcium chloride shall not be used without the express written approval of the (Architect) (Engineer).
- B. Other Admixtures: Air entraining agents, accelerators, retarders, or other admixtures shall not be used without the express written approval of the (Architect) (Engineer).

2.05 Mortar Type

- A. Mortar for load bearing structures: (BIA M1, Type N) (ASTM C270, Type N) (ASTM C 270, Type S).
- B. Mortar for non-load bearing structures: (BIA M1, Type N) (ASTM C270, Type N) (ASTM C 270, Type S).

2.06 Mortar Proportions

- A. Mortar proportions, by volume:

Mortar Types	Glen-Gery Color Mortar Blend	Sand All Mortar Types
BIA M1, Type N ^a	1 Part	2 ¹ / ₄ to 3 Parts Damp, Loose Sand
C 270, Type N ^a	1 Part	
C 270, Type S ^b	1 Part	

- a) Meets proportion requirements.
- b) Meets property requirements.

2.07 Mortar Mixing

- A. Measuring of materials shall be either by weight or volume, such that at the specified proportions of mortar materials can be controlled and accurately maintained.
- B. Sand shall not be measured by the shovel.
- C. Glen-Gery Color Mortar Blend and sand shall be mixed in a mechanical batch mixer for at least three

minutes, but not more than five minutes with the maximum amount of water which will produce a workable consistency.

- D. If, within two hours of mixing, excessive water is lost from the mortar by evaporation, retemper the mortar.
- E. Discard all mortar which is more than two and one-half hours old.

Part III Execution

3.01 Apply mortar in accordance with Section ()*.

*Section numbers are referenced from Construction Specifications Institute Master Specifications.

Sales/Service Centers

Illinois

Chicago Sales Office
273 W. 83rd. St.
Suite B-1
Burr Ridge, IL 60521
TEL (630) 655-1121
FAX (630) 655-0163

Michigan

Midwest Regional Sales Office
37720 Hills Tech Drive
Farmington Hills, MI 48331
TEL (248) 489-9338
FAX (248) 489-8028

New Jersey

Northeast Regional Sales Office
75 Hamilton Road
Somerville, NJ 08876
TEL (908) 359-7305
FAX (908) 359-5116

Ohio

Ohio Sales Office
County Road #9
P O Box 208
Iberia, OH 43325
TEL (419) 468-4890
FAX (419) 468-6037

Pennsylvania

Lehigh Valley Sales Office
1960 Weaversville Road
Allentown, PA 18103
TEL (610) 264-5565
FAX (610) 264-2860

Brick Centers

Iowa

Glen-Gery Brick Center
101 Ashworth Road
W. Des Moines, IA 50265
TEL (515) 224-4110
FAX (515) 224-4057

Kansas

Kansas City Brick Showroom
9343 W. 74th. Street
Merriam, KS 66204
TEL (913) 677-4680
FAX N/A

Missouri

Glen-Gery Brick Center
2400 Allen Terrace
Kansas City, MO 64108
TEL (816) 474-4680
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299 Brickyard Road
P O Box 337
New Oxford, PA 17350
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