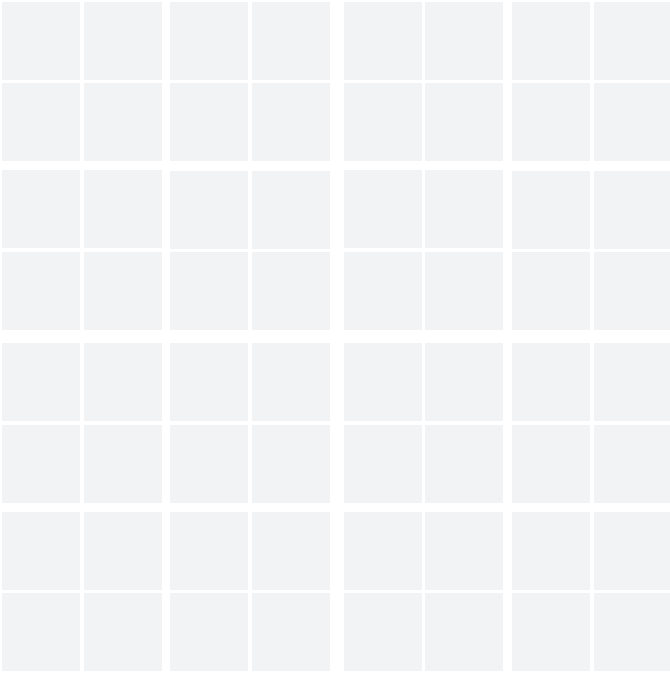


GLAZED BRICK

Section 4 Masonry



1. PRODUCT

Glazed Brick

2. MANUFACTURER

Elgin Butler Company
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3. DESCRIPTION

Unit Description: Glazed Brick are extruded clay, ceramic glazed masonry units for wall applications. Used as structural walls, partition walls, multi-wythe-walls or veneers. The ceramic finish is available in many colors. Offering a durable permanent wall system that has an impervious ceramic glazed face with a high abuse tolerance against fading, impact, abrasion and graffiti.

Sizes*:

Nominal Face Size	Unit Name	Actual Face Size	Nominal Bed Option Single Face
4S Series	Modular	2-1/4" x 7-5/8"	4"
SS Series	Standard	2-1/4" x 8"	4"
6S Series	Norman	2-1/4" x 11-5/8"	4"
5J Series	King Size	2-5/8" x 9-5/8"	3"
JX Series	Jumbo	2-3/4" x 8"	4"
EN-4P Series	Closure Modular	3-5/8" x 7-5/8"	4"
EN-6P Series	Utility	3-5/8" x 11-5/8"	4"
4W Series	8 Square	7-5/8" x 7-5/8"	4"
6Y Series	12 Square	11-5/8" x 11-5/8"	4"

* Common sizes listed. Other sizes available, contact manufacturer.

Shapes: Standard stretchers, starters, jambs, sills, lintels, and miters. Bullnose or square edges. Architectural Trim Units and special shapes available.

Finishes and Colors: Standard, non-standard and custom colors available from Elgin Butler's library of colors. Gloss, satin, matte, mottled, and ultra matte glazes. Contact manufacturer for samples in color scheme desired. Request production run samples for final color approval.

Classification: ASTM C-1405
 a. Grade S (Standard sized).
 b. Type I & II (Single-Faced and/or Two-Faced Units).
 c. Class Exterior (or Interior).
 d. Division as either: Solid (void area less than or equal to 25%), or H40V (void area greater than 25% but less than or equal to 40%), or H60V void area greater than 40% but less than or equal to 60%). Sized for 3/8" (10mm) mortar joints. (Contact manufacturer for availability of Division specification available in each size.).

Limitations: Acid resistant to most alkalis and acids except hydrofluoric. Use cavity wall construction for exterior (see method).

Illustrations: Quantity take-off and detailing services can be arranged by manufacturer. Specifying detailing services may improve installation results.

4. TECHNICAL INFORMATION

Applicable Standards:

ASTM C-1405, Standard Specification for Glazed Brick (Single Fired, Brick Units).

Physical Properties: Brick durability is determined by their resistance to freeze/thaw damage. Class Exterior is intended for use where a resistance to freeze/thaw cycles is required. Many test standards and guidelines are set forth for which the “Class” of glazed brick is determined. Some are mentioned here. For specific information refer to the applicable ASTM Specification Standard.

Maximum Water Absorption by 24-hr Cold, 7°		Maximum Saturation Coefficient ⁺
	Individual	Average of 5 Brick / Individual
Class Exterior	7.0	0.78 / 0.80

⁺Saturation coefficient is the ratio of absorption in 24-hr cold water to 5-hr boil tests.

Compressive Strength: Glazed Brick is a structural clay masonry unit. These brick generally exceed the minimum compressive strength requirements many times over in most cases. Class Exterior minimum compressive strengths listed below:

Compressive Strength, psi (MPa), Gross area		
Description	Minimum Avg. of 5 Test Units	Individual Minimum Per Unit
Class Exterior	6,000 (41.4)	5,000 (34.8)

Properties of Finish as Follows: Minimum standards for the ceramic glazed finish substantiating durability, building safety and lifetime low maintenance. Test criteria and details for each located in ASTM C-1405. Special decorative, double-fired and clear ceramic glazes are exempt.

- **Imperviousness:** Subject the finish to a permanent blue-black ink test for 5 minutes then washing with a wet cloth and running water. No stain visible from 5 feet except a slight discoloration in the depressions on matte, stippled or mottled glazes and in crevices formed by units body texture.
- **Opacity:** Discoloration from the body should not be visible through the glaze, when so specified. Consult manufacturer on clear or custom glazes.
- **Resistance to Fading:** The color of the glaze will not change when subjected to chemical resistance tests.
- **Chemical Resistance:** The color and texture of the glaze will not change when subjected to the hydrochloric and potassium hydroxide chemical resistance tests.
- **Resistance to Cracking:** The glaze will not craze, spall or crack when subjected to one cycle of autoclaving in the crazing test.
- **Flame Spread, Fuel Contribution and Smoke Density:** Rated zero in all categories when tested in accordance with ASTM E-84 (equivalent UL 723). No toxic fumes.
- **Hardness and Abrasion Resistance:** Glaze must resist scratching by steel or ordinary glass and be rated above 5 on the Mohs Hardness Scale. Abrasion tested under Wear Index Method No. 6192 (Federal Standard Test No. 141).

INSTALLATION

Preparation: In preparation for the proper installation of Glazed Brick the mason contractor should be familiar with the recommendations and requirements of the Brick Industry Association and the manufacturer. The material should be kept clean and dry. Do not lay Glazed Brick units in extreme cold or hot weather conditions without taking necessary precautions for such conditions to ensure proper bonding.

Mortars: Glazed Brick is laid in standard cement mortar following the guidelines in ASTM C-270, Mortar for Unit Masonry. Generally Type N or S mortar will provide the satisfactory properties desired.

Method: For most exterior applications: Do not wet units. Lay units with cells running vertically to allow for drainage of moisture within the wall; cavity wall construction consisting of a minimum 2" cavity, appropriate flashing and weep holes and vents following the guidelines as outlined by the Brick Industry Association, is necessary; proper coping, sloped sills and attention to areas where projections or recesses exist, detail to permit drainage to flashing then weep holes. Do not use joint sealers on exterior. To avoid damage to the glazed face keep the units in the manufacturers' packaging until the individual unit is ready to be laid in the wall. The mason should apply mortar to each brick with full head and bed joints shoving unit into place keeping plumb, square and level to the line. Joints should be uniform 3/8". Tool joints concave with 1" or larger non-metallic jointer. Cut Glazed Brick using a wet masonry saw, diamond blade. Keep excess mortar from the face of the brick by wiping with a clean rag within 30 minutes. Do not use metal tools on glazed face. Allow wall to cure for 24 hours. Clean finished walls by wetting with clean water then applying detergent, if necessary, and scrubbing with a stiff fiber brush. Use a wooden scraper to remove excess mortar from difficult areas. Rinse thoroughly with clean water. Do not use acids or abrasive cleaners.

Building Codes: Glazed Brick is found acceptable in most major building codes.

6. MAINTENANCE

Occasional cleaning can be done with soap and water in areas as needed. Power sprayers may be used, however, take care not to damage the mortar joints. For graffiti, use paint thinner or a detergent product to remove the paint/marker etc. Always be careful not to etch or yellow the mortar joints. Contact the manufacturer for cleaning product recommendations.

7. AVAILABILITY AND COST

Availability: Available through distributors in the United States and Canada; for exporting to other countries contact the manufacturer. Allow sufficient time for manufacturing and shipping. The finished product normally takes 8 to 10 weeks (depending on demand, any special shapes and/or custom color development required).

Cost: The cost averages will vary depending on the amount of shapes and colors used, shipping distance and local labor costs. Visit cost information on our website from *Means Building Construction Cost Data*.

8. WARRANTY

Elgin Butler Company will certify that its products meet the standards set forth by ASTM C-1405 for quality, product durability, tolerances, and grading specifications. For any suspected non-conforming material found prior to its installation contact the manufacturer to arrange for inspection and determination.

9. TECHNICAL SERVICES

Technical assistance is available by calling our manufacturing facility at (512) 285-3356 or by calling directly to the technical service manager in Ohio at (330) 877-6654. Assistance is also available through our network of qualified distributors throughout the U.S. and Canada.