

SECTION 04223

SPLIT FACE CONCRETE MASONRY UNITS

******* E. Dillon & Company manufactures the following high quality, custom produced, architectural concrete masonry units (CMU) using superior colored aggregates from its own quarry and state-of-the art polishing, grinding, and other equipment:**

Premier Line Reflective Faced CMU

Premier Line Ground Face CMU

Premier Line Split Face CMU

This guide specification section can be used to specify Premier Line Split Face CMU. These are integrally colored, concrete masonry units with split formed rough texture faces. Various face profiles are provided including scored, fluted, ribbed, and full split face. SECTION 04221 - REFLECTIVE FACE CONCRETE MASONRY UNITS can be used to specify Premier Line Reflective Face CMU and SECTION 04222 - GROUND FACE CONCRETE MASONRY UNITS can be used to specify Premier Line Ground Face CMU. For projects using more than one Premier Line CMU, these sections can be combined into a single SECTION 04220 - CONCRETE MASONRY UNITS.

PART 1 - GENERAL

1.1 SUMMARY

This guide specification section contains only minimal requirements for constructing CMU assemblies. Reinforcement, mortar, and grout are not included and this section needs to be cross referenced to the section containing installation requirements. However, if this section is to be a stand-alone, all inclusive masonry section; reinforcement, mortar, grout, and installation requirements will need to be added by the specifier. *****

- A. Section includes: Integrally colored, concrete masonry units with split formed rough texture faces and [full split] [scored] [fluted] [ribbed] face profiles. [Section includes reinforcement, mortar, and grout].
- B. Related sections:

******* List other specification sections dealing with work directly related to this section such as the following. *******

- 1. Section 07212 - Foamed-in-Place Insulation: Insulation placed in CMU cavities either during or after erection of masonry walls.

2. Section 07600 - Flashing and Sheet Metal: Sheet metal flashing embedded in masonry joints.
3. Section 04810 - Unit Masonry Assemblies: Construction of masonry walls using ground face masonry units specified in this Section.

1.2 REFERENCES

****** List by number and full title reference standards referred to in remainder of specification section. Delete non-applicable references. ******

A. America Society for Testing and Materials:

1. ASTM C25 - Chemical Analysis of Limestone, Quicklime, and Hydrated Lime.
2. ASTM C33 - Concrete Aggregates.
3. ASTM C90 - Load-Bearing Concrete Masonry Units.

1.3 SUBMITTALS

A. Provide in accordance with Section 01330 - Submittal Procedures:

1. Product data for split face CMU types indicating composition, shape, surfaces, and dimensions.
2. Copies of test reports and certificates showing compliance with Paragraph 2.2.A and Paragraph 2.3.
3. Samples of split face CMU illustrating face profile, color range, surface, and texture.
4. Installation instructions.

1.4 MOCK-UP

****** Appearance is a key attribute of masonry walls constructed with Premier Line Split Face CMU. To ensure quality is achieved, a mock-up is recommended. Use this article to specify a split face CMU sample wall panel constructed at site for approval by architect. ******

- A. In accordance with Section 01400 - Quality Control, prepare mock-up of split face CMU wall illustrating color, finish, texture, and joints and to establish standard of quality for completed work.
- B. Mock-up shall be building corner [with [window] [door] opening] illustrating split face CMU and mortar combination, coursing, and pattern. Mock-up shall be

constructed with:

1. Split face CMU as specified in this Section.
 2. Mortar, grout, and reinforcement specified in Section 04810 - Unit Masonry Assemblies.
- C. Size: Approximately [4 feet] [1.2 m] [_____] high by [6 feet] [1.8 m] [_____] long.
- D. Provide slab or foundation support as required by size of mock-up.
- E. Retain mock-up during construction as quality standard. Completely remove when work is accepted.

1.5 HANDLING

- A. Deliver, store, and handle masonry units in manner to avoid chipping, breakage, marring split faces, and contact with contaminating materials.
- B. Deliver on wood pallets. Prior to shipping cover block cubes with shrink wrap or shrink bags.
- C. Site store in protected area and covered to ensure units remain dry and clean. Do not allow units to sit in standing water.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. E. Dillon & Company, P.O. Box 160, Swords Creek, Virginia 24649; 800-234-8970.
- B. Manufacturers of equivalent products submitted and approved in accordance with Section 01630 - Product Substitution Procedures. Architect reserves right to reject substitution request based on aggregate, color, and split face profile even though structural characteristic, shapes, and materials are equivalent.

2.2 MATERIALS

- A. Aggregates: Selected to provide specific color appearance and complying with:
1. Normal weight CMU: ASTM C33.
- B. Water repellent: Liquid integral polymeric admixture.

2.3 SPLIT FACE CONCRETE MASONRY UNITS

- A. Type: Hollow and solid, load bearing, integrally colored concrete masonry units

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with faces formed by splitting and complying with ASTM C90, Grade N, Type I moisture controlled.

B. Minimum compressive strength: 2,000 PSI for average net area.

***** **E. Dillon & Company manufactures normal weight Premier Line Split Face CMU.**

C. Weight: Normal weight type manufactured with concrete weighing over 125 PCF.

D. Maximum linear shrinkage: 0.065 percent.

E. Water repellency: Units manufactured with integral water repellent.

***** **E. Dillon & Company manufactures Premier Line Split Face CMU in 27 standard colors achieved with mixes of different colored aggregates. Custom colors and multi-blended mixes are also available. Contact E. Dillon & Company for samples and custom color options.** *****

F. Color: Achieved with mix of colored aggregates; [Emerald] [Carnival] [Camel] [Red Marvel] [Amethyst] [Mocha] [Desert] [Heritage] [Mars] [Harvest] [Shadow] [Dominion] [Blue Ice] [Desert Bloom] [Silver Sand] [Desert Castle] [Mocassin] [Sierra Mist] [Shell Storm] [Antique Rose] [Hurricane] [Colonial White] [Granite Red] [Salt & Pepper] [Crystal White] [Glacier] [Sahara]; manufactured by E. Dillon & Company.

***** **Premier Line Split Face CMU units can be provided with four types of face profile - scored, fluted, ribbed, and full split face. Select profiles required for project and delete non-applicable profiles.** *****

G. Face profile: Provide faces with formed vertical profiles such that pattern aligns when units are laid in running bond.

1. Scored: Split face scored with [1] [_____] vertical false head joint[s].
2. Fluted: Split face with [2] [4] [8] flutes separated by trapezoidal vertical recess[es], approximately [1 inch] [25 mm] wide at face.
3. Ribbed: Split face with [4] [_____] vertical ribs separated by smooth rounded indentations. Width of ribs approximately equal width of indentations.
4. Full split face: Flat, split textured face.

***** **E. Dillon & Company manufactures both hollow and solid Premier Line Split Face CMU. Standard height is 7-5/8 inches (194 mm). Standard length is 15-5/8 inches (397 mm). 3-5/8 inches (92 mm) high ashlar units are also available. Available depths are 2-1/4, 3-5/8, 5-5/8, 7-5/8, and 11-5/8 inches (57, 92, 143, 194, and 295 mm). Indicate types**

required and delete non-applicable ones. *****

******* Actual CMU dimensions are 3/8 inch (10 mm) less than nominal unit dimensions. Actual dimensions accommodate a 3/8 inch (10 mm) joint. For example an 8x8x16 unit is actually 7-5/8 inches (194 mm) deep by 7-5/8 inches (194 mm) high by 15-5/8 ((397 mm) inches wide. Dimensions presented in this section are actual dimensions rather than nominal dimensions. *******

H. Types:

1. Stretcher units: Hollow units with one split front face, [7-5/8 inches] [194 mm] high by [15-5/8 inches] [397 mm] long.
2. Half units: Hollow units with one split front face, [7-5/8 inches] [194 mm] high by [7-5/8 inches] [194 mm] long.
3. Ashlar units: Half-high hollow units with one split front face, [3-5/8 inches] [92 mm] high.
4. Hollow corner units with one split front face and one split end split.

******* Bond beam units are provided with or without solid bottoms. *******

5. Bond beam units: Hollow bond beam units with one split front face and [solid bottom] [knock-out webs].

******* Sill units are provided in three depths, 7-5/8, 5-5/8, and 3-5/8 inches (194, 143, and 92 mm). *******

6. Sill units: Solid units with vertical split front face and smooth sloped front face, [7-5/8 inches] [194 mm] wide by [7-5/8 inches] [194 mm] high by [[7-5/8] [5-5/8] [3-5/8] inches] [[194] [143] [92] mm] deep.

I. Unit sizes: [As indicated on Drawings and otherwise required to complete work.]

1. Depths: [[2-1/4] [3-5/8] [5-5/8] [7-5/8] [11-5/8] inches] [[57] [92] [143] [194] [295] mm].
2. Height: [7-5/8 inches] [194 mm] [and] [3-5/8 inches] [92 mm].
3. Lengths: [15-5/8 inches] [397 mm] [7-5/8 inches] [194 mm].

PART 3 - EXECUTION

3.1 COORDINATION

- A. Coordinate provision of split face CMU with mortar specified in Section 04810 -

Unit Masonry Assemblies to ensure:

1. Color compatibility between integrally colored split face CMU and integrally colored mortar.
2. Water repellent admixture added to mortar matches water repellent used in manufacture of split face CMU.

3.2 INSTALLATION

- A. Install split face CMU as part of unit masonry work specified in Section 04810 - Unit Masonry Assemblies. Install, protect, and clean in accordance with installation requirements of that Section, manufacturer's installation instructions, and the following additional requirements.
- B. Field cut split face CMU with power tools to provide straight true edges and avoid damage to split face. Do not install chipped or broken units.
- C. Exercise care that wet mortar is not splashed onto split face during installation. Excess or splashed mortar shall be cleaned from face with soft-bristle brush (keeping brush clean). Remove after mortar becomes hard enough not to smear but prior to mortar sets.
- D. During grouting, placement of foamed-in place insulation, and application of sealants, ensure that materials are not smeared onto split faces of CMU.. Remove as recommended by manufacturer.

3.3 PROTECTION

- A. During erection: Cover top of walls with waterproof sheeting at end of each day. Cover partially completed walls when work is not in progress. Extend cover 24 inches minimum down both sides and hold securely in place.
- B. Protect face of walls, sills, and other projections from roof run-off, splashed water, mud, grout, and mortar.
- C. Spread sand or straw at base of walls to minimize dirt and clay splashing onto split CMU faces.
- D. Without damaging completed work, provide protective boards at exposed external corners which may be damaged by construction activities.

3.4 CLEANING AND SEALING

- A. Clean soiled split CMU surfaces only with general purpose type cleaning solution as recommended by manufacturer. Follow manufacturer's cleaning instructions. Maintain split surface and color.

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END OF SECTION