

1.02 Section Includes

- A. Glass Block Units, hollow or solid
- B. Integral Joint Reinforcement
- C. Mortar

1.03 Related Sections

- A. Steel Channels
- B. Sills, lintels, jambs
- C. Sealant (caulk)
- D. Packing Material

1.04 References

- A. ASTM A82—Spec. for Cold Drawn Steel Wire
- B. ASTM A153—Class B-2, Spec. Zinc Coating (Hot dip) on Iron and Steel Hardware (Canada same)
- C. ASTM A167, Spec. for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip
- D. ASTM A580, Spec. for Stainless Steel Wire

3. Contractor shall warrant that proposed substitutions, if accepted, will provide performance equivalent to the materials specified herein.
4. These specifications have been developed by Pittsburgh Corning Corporation based on extensive tests of panels composed of Pittsburgh Corning Premiere Series Glass Block masonry units as manufactured by Pittsburgh Corning Corporation. These specifications do not apply to panels made from glass block masonry units produced by any other manufacturer.

2.02 Glass Block Units

- A. Glass block units, nominally _____ inch x _____ inch x _____ inch thick shall be partially evacuated hollow units made of clear, colorless glass with a polyvinyl butyral edge coating.
Pattern type: _____
- B. Solid glass units, nominally _____ inch x _____ inch x _____ thick made of clear colorless glass with a polyvinyl butyral edge coating.
Pattern type: VISTABRIK® Solid Glass Block.

NOTE: Pittsburgh Corning Corporation offers a polyvinyl butyral edge coating for better bonding and to provide for an expansion/contraction mechanism for each block.

2.03 Accessories

- A. Panel Reinforcing: two parallel 9 gauge wires either 1³/₈ inch or 2 inch on center with electrically butt-welded crosswires spaced at regular intervals, hot dipped galvanized after welding or Type 304 stainless steel, by Pittsburgh Corning Corporation.
- B. Panel Anchors: 20 gauge perforated steel strips 24 inches long by 1³/₄ inches wide, hot dipped galvanized after perforation or 22 gauge by 16 inches long by 1³/₄ inches wide of Type 304 stainless steel, by Pittsburgh Corning Corporation.
- C. Expansion Strips: made of polyethylene foam with a thickness of ³/₈ inch, by Pittsburgh Corning Corporation.
- D. Asphalt Emulsion: a water-based asphalt emulsion, by Karnak Chemical Corp. (Karnak 100, 1-800-526-4236), or equal.
- E. Sealant (caulk): non-staining, waterproof mastic, (silicone), (urethane), (_____) type.

Below is a list of the toll-free telephone numbers of the Technical Departments of the following sealant manufacturers:

- Dow Corning Corporation, 1-800-248-2481 in Midland, MI
- General Electric, 1-800-255-8886, in Waterford, NY
- Sonneborn Building Products, 1-800-243-6739 in Minn., MN
- Tremco Incorporated, 1-800-321-7906 in Beachwood, OH Below is information on the fire retardant sealant used on glass block fire tests:

- Fyre-Sil Silicone Sealant (for fire-rated construction), by Tremco, Inc. (1-800-321-7906)
- F. Packing (Backer Rods): polyethylene foam, neoprene, fibrous glass or equal as approved by sealant manufacturer.
- G. Channels (Aluminum): Available from Julius Blum & Company, Inc., 1-800-526-6293 in Carlstadt, NJ.
- Premiere Series (4" Glass Block)
Use: 4¹/₂" x 2" x ¹/₈" size.
 - VISTABRIK® and Thinline® Series (3" Glass Block)
Use: 4" x 1¹/₂" x ¹/₈" size.

2.04 Mortar Materials

Mortar: Type S in accordance with ASTM C270. Mortar shall be 1 part Portland Cement, ¹/₂ part lime, and sand equal to 2¹/₄ to 3 times the amount of cementitious material (cement plus lime), all measured by volume. (For exterior glass block panels, an integral type waterproofer should be added to the mortar mix.)

No antifreeze compounds or accelerators allowed.

NOTE: All model building codes also accept the use of Type N mortar.

1. Portland Cement: Type I in accordance with ASTM C150.
If a waterproof Portland Cement is used, the integral type waterproofer shall be omitted. (Masonry Cement is not recommended.)
Color: _____
2. Lime: Type S, in accordance with ASTM C207. Shall be a pressure-hydrated dolomitic lime, provided that not less than 92% of all the active ingredients are completely hydrated.
3. Sand: A clean, white quartzite or silica type, essentially free of iron compounds, in accordance with ASTM C144, not less than 100% passing a No. 8 sieve.
4. Integral Type Water-repellent: Stearate type by Sonneborn Building Products (Hydrocide Powder, 1-800-243-6739), or approved equal. Note: Add hydrocide powder to dry mortar mix. Do not add powder to wet mortar mix.
5. External Type Water proofer: Water based silane sealer type by Sonneborn Building Products (HYDROZO ENVIROSEAL™ 20, 1-800-243-6739). Note: Remove excess sealer from glass surfaces soon after application.

PART 3 – EXECUTION

3.01 Preparation

- A. Verify that (channels), (panel anchors) have been provided at head and jambs for the purpose of providing panel support within the opening.
- B. Mix all mortar components to a consistency that is drier than mortar for ordinary masonry. Retempering the mortar after it has taken its initial set shall not be permitted. **Do not use antifreeze compounds or accelerators.**

- C. *Freshly mixed mortar may create skin irritation. Avoid direct contact where possible and wash exposed skin areas promptly with water. If any mortar gets into the eyes, rinse immediately with water and get prompt medical attention.*