**STANDARD SPECIFICATIONS**

**MASONRY**

**PART 1 – GENERAL**

1.01 **Summary**
This specification has been prepared by Pittsburgh Corning Corporation using generally accepted and appropriate technical information but is not intended to be solely relied upon for the specification design or technical applications. Having no control over the elements of design, installation, workmanship or site conditions, Pittsburgh Corning assumes that the actual design choices and installation will be made by persons trained and qualified in the appropriate disciplines. Therefore, Pittsburgh Corning disclaims all liability potentially arising from the use or misuse of this specification.

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, jamb
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
E. ASTM C144, Spec. for Aggregate for Masonry (Canada – A179-94)
F. ASTM C150, Spec. for Portland Cement (Canada – CAN/CSA-A3-93)
G. ASTM E2010 and NFPA 257, Fire Test of Window Assemblies (equivalent to UL® 9 and CAN 4-S106-M80)
H. ASTM C207, Spec. for Hydrated Lime for Masonry Purposes (Canada same)
I. ASTM C270, Spec. for Mortar for Unit Masonry (Canada – A179-94)
J. ASTM D1187, Type II—Spec. for Asphalt-Base Emulsions (For Metal Surfaces)
K. ASTM D1227, Type III—Spec. for Emulsified Asphalt (For Porous Surfaces)

1.05 **System Description**
Knowledge of the following basic information is essential for proper installation of Pittsburgh Corning Glass Block units:
1. Glass block panels shall not be designed to support structural loads.
2. Maximum deflection of structural members supporting glass block panels shall not exceed L/600
3. Sills of all panels must be painted with a heavy coat of asphalt emulsion and must cure for two hours before first mortar bed is placed.

4. Provision for expansion and movement must be made at jamb and heads of all panels. Mortar must not bridge expansion spaces.
5. Mortar should be mixed and applied in accordance with the recommendations of Pittsburgh Corning Corporation. See Mortar Materials.
6. Design and installation of glass block projects should be done by whole units since cutting glass block is not recommended.

**PART 2 – PRODUCTS**

2.01 **Acceptable Manufacturers**
A. The drawings and specifications are based on catalog data, specifications and products of Pittsburgh Corning Corporation and designate the type and quality of work intended under this section.

1. Products of other manufacturers proposed as equivalent quality must be submitted through the bidding contractors for written approval of the architect ten days prior to the bid date.
2. Supporting technical data, samples, published specifications and the like must be submitted for comparison.
3. Contractor shall warrant that proposed substitutions, if accepted, will provide performance equivalent to the materials specified herein.

4. These specifications are also 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 masonry units made of colorless glass with a polystyrene butyral edge coating. Pattern type: ______

B. Solid glass units, nominally ______ inch x ______ inch x ______ inch thick made of clear colorless glass with a polystyrene butyral edge coating. Pattern type: VISTABRIK® Solid Glass Block.

NOTE: Pittsburgh Corning Corporation offers a polystyrene 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 ga. wires either 1/8 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 1 inch thick, by Pittsburgh Corning Corporation.

C. Expansion Strips: made of polyethylene foam 1 inch thick, by Pittsburgh Corning Corporation.

D. Asphalt Emulsion: a water-based asphalt emulsion, by Karnak Chemical Corp. (Karnak 100, 1-800-526-4256), or equal.

E. Sealant (caulk): non-staining, waterproof mastic, (silicone), by General Electric, 1-800-234-6739, or approved equal.

F. Packing (Backer Rods): polyethylene foam, neoprene, fiberglass glass or equal as approved by sealant manufacturer.

G. Channels (Aluminum): Available from Julius Blum & Company, Inc., 1-800-248-2481 in Midland, MI following sealant manufacturers. Do not use any remaining film on the block to dry to a powder.暴露于日光下的部位。

3.03 Cleaning

A. Remove surplus mortar from the faces of the glass block at the time joints are struck or toasted. Mortar should be removed while it is still plastic using a clean, wet sponge or an ordinary household brush with stiff bristles.

B. Do not use harsh cleaners, acids (of any strength), abrasives or alkaline materials when cleaning glass block. Never use a wire brush to remove mortar from glass block surfaces.

C. Final mortar removal is accomplished with a clean, wet sponge or cloth. Rinse sponge or cloth frequently in clean water to remove abrasive particles that could scratch glass surfaces. Allow any remaining film on the block to dry to a powder.

D. After all sealants, caulking, etc., have been applied, remove excess caulking materials with commercial solvents such as xylene, toluene, mineral spirits or paint thinner and follow with normal wash and rinse. Be careful not to damage caulking by overzealous application of strong solvents. Comply with solvent manufacturer's printed directions on label for toxicity and flammability warnings.

E. Final cleaning of glass block panels is accomplished after they are completely installed. Wait until panels are not exposed to direct sunlight. Start at the top of the panel and wash with generous amounts of clean water. Dry all water from the glass block surface. Change cloth frequently to eliminate dried mortar particles or aggregate that could scratch the glass surface. To remove the dry powder from glass block surfaces, use a clean, dry, soft cloth. For stubborn or hard to remove powder or stains, the use of an "extra fine" steel wool (grades 000 or 0000) is suggested. Try this first in an unobtrusive area.

3.02 Installation

A. Cover sill area with a heavy coat of mortar mix.