



**SECTION 08 80 00
COMMERCIAL GLASS BLOCK WINDOWS/PANELS**

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Engineered Glass Block System

1.2 RELATED SECTIONS

- A. Section 05 50 00 - Metal Fabrications Steel channels, sills, lintels and jambs.
- B. Section 07 90 00 - Joint Sealers.
- C. Section 09 90 00 - Paints and Coatings

1.3 REFERENCES

- A. ASTM E283 -04 Standard Test Method for Determining the Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors under Specified Pressure and Temperature Differences across the Specimen.
- B. ASTM E330 -02 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
- C. ASTM E547 - 00 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference.
- D. ASTM C920 -08 Standard Specification for Elastomeric Joint Sealants.
- E. Tested in accordance with MMA/WDMA/CSA 101/1.S.2/A440-05
- F. **ANSI Z97.1** - Safety Impact Test
- G. CPSC 16 CFR 1201 - Safety Impact Test

1.4 QUALITY ASSURANCE

- A. Manufacturer
 - 1. Minimum of 10 years specialized experience in the manufacture of windows.
- B. Direct Representation
 - 1. The manufacturer shall have available a direct representative with full knowledge and experience of the product and systems for technical assistance.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Product Data: Manufacturer's literature on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Written installation instructions.
- C. Verification Samples:
 - 1. Two glass block units of each type specified, showing size, design, and pattern of faces as required for project.
 - 2. Representative samples of assembly as required for project.
- D. Test Reports
 - 1. Submittal of test reports from independent laboratories indicating conformance to regulatory requirements shall be made available if required by architect.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Handle panels in a manner which will prevent undue stress on component parts, sealants and structural members. Do not rack or torque, or cause load forces in an inappropriate manner.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.8 WARRANTY

- A. Provide manufacturers **limited 5-year warranty**.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. Design Requirements
 - 1. Engineered system shall conform to the requirements specified for the particular items and shall be complete assemblies by a single manufacturer.
- B. Performance Requirements
 - 1. The system shall meet the design loads for the location of the installation as specified by the project engineer.
- C. Basis for Design
 - 1. The design for this window system is based on SEVES LightWise® Architectural Systems "Commercial Window."

2.2 MANUFACTURERS

- A. Acceptable Manufacturer:
 - 1. Seves Glass Block Inc.
10576 Broadview Rd, Cleveland, Ohio 44147
440-627-6257 or 877-SEVES11 (877-738-3711)
www.sevesglassblockinc.com inquiry@sevesglassblock.com

2.3 GLASS BLOCK PREFABRICATED SYSTEM

- A. Glass Block: General.
 - 1. Edge Coating: Polyvinyl Butyral or Latex-based paint
 - 2. Framing: 2-piece thermally-broken aluminum frame system
- B. Glass Block: Seves hollow glass block
 - 1. Pattern: all available patterns
 - 2. Nominal Size; all available sizes
- C. Basis for Design
 - 1. SEVES LightWise® Architectural Commercial Glass Block Windows
- D. Physical Properties:
 - 1. Weight Installed 15 lbs/sq. ft.
 - 2. Thermal Conductance (U Value): 0.45 Btu/hr sq. ft. deg F
 - 3. Thermal Resistance (R Value): 2.24 deg F hr sq. fUBtu
 - 4. Visible Light Transmission: 45% to 91% depending on pattern
 - 5. Sound Transmission: STC 35 to 40

2.4 ACCESSORIES

- A. Sealant (caulk): Non-staining; waterproof mastic; silicone type meeting the requirements of **ASTM C920**
- B. Aluminum 2-piece Channel System: anodized or powder coated as required.
- C. Anchorage: Self-tapping screws and masonry anchors per substrate.
- D. Shims: Plastic type shims as required

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Notify architect of unsatisfactory preparation before proceeding.
- C. Verify that channels for support at head, jambs and sills are properly installed.

3.2 PREPARATION

- A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install Glass Block System in strict compliance with the manufacturers' specifications, sizing, anchorage charts and installation instructions including all materials, accessories, workmanship and cleaning.

3.4 CLEANING

- A. Remove excess sealant from glass surfaces immediately following application.

3.5 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION 08 80 00