

**SECTION 08800**  
**GLASS AND GLAZING**

**PART 1 – GENERAL**

1.1 SCOPE

- A. This section describes the required materials and installation standards for all glass and glazing including, but not limited to: interior and exterior windows, sidelights, door lights and observation ports.

1.2 APPLICABLE PUBLICATIONS

- A. The following publications form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only:
- B. American Society for Testing and Materials (ASTM) Publications:
  - 1. Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors
  - 2. Water Penetration of Exterior Windows, Curtain Walls and Doors
  - 3. Cellular Elastomeric Preformed Gasket and Sealing Material
  - 4. Staining and Color Change of Single or Multicomponent Joint Sealants
  - 5. Volatility of Oil and Resin Based, Knife Grade, Channel Glazing Compounds
  - 6. Standard Specification for Flat Glass
- C. American National Standards Institute, Inc. (ANSI):
  - 797.1-75 Performance Specification and Methods of Test for Safety Glazing Material Used in Buildings.
- D. Consumer Products Safety Commission (CPSC) Standard:
  - 16 CFR Safety Standard for Architectural Glazing Materials, latest edition, Part 1201
- E. National Fire Protection Association (NFPA) Publication:
  - 80-1977 Fire Doors and Windows
- F. Flat Glass Marketing Association (FGMA) Publications:
  - Glazing Manual – latest edition.
  - Glazing, Sealing Systems Manual, latest edition
- G. National Association of Architectural Metal Manufacturers (NAAMM) Publication:
  - SG-1-70 Dense Rubber-Like Compression Gasket Material

1.3 SUBMITTALS: See SECTION 01300 – SUBMITTALS

**PART 2 – PRODUCTS**

2.1 PERFORMANCE REQUIREMENTS

- A. See drawings for location of each type of glass specified herein. Unless otherwise shown, all door lights and sidelights, entrance ways and high traffic areas shall be glazed with safety glazing materials conforming to CPC 16 CFR, Part 1201.

## 2.2 SHEET OR FLOAT GLASS

- A. Clear sheet or float glass shall be glazed in interior openings not indicated or specified otherwise. Install 7/32" glass for glazing openings over 36 square feet but not over 45 square feet. Sheet for float glass shall be one of the following manufacturer's products:
1. DS Float Glass: PPG Industries, Inc.
  2. DS Float Glass: Ford Glass Division
  3. DS Float Glass: Guardian Industries

## 2.3 TINTED FLOAT GLASS

- A. Tinted float glass shall be glazed in all exterior window openings. Glass thickness shall be as outlined in clear float section.
1. Light Transmittance: 58%
  2. Shading Coefficient: 0.76
  3. U-Value (Summer): 1.08

## 2.4 POLISHED WIRE GLASS (NOT USED)

## 2.5 TEMPERED GLASS:

- A. Tempered glass shall be fully tempered safety glass manufactured by a special heat treating process to improve its mechanical strength. Glass shall meet the requirements of ANSI Z97.1 and USPC standard 16 CFR 1201 C1 and C11. Glass shall be clear with tongless edges of thickness indicated on the drawings or as required by CPSC for openings size. Provide tempered glass at all required locations.
- B. Tempered glass shall be products of one of the following manufacturers:
1. Herculite as manufactured by PPG Industries, Inc.
  2. Tempered safety glass as manufactured by Ford Glass Division
  3. Guardian tempered glass as manufactured by Guardian Industries, Inc.

## 2.6 SEALING MATERIALS

- A. Provide neoprene setting materials of the types required for the applicable setting method specified in the FGMA Glazing Sealing Systems Manual, unless specified otherwise herein. Do not use metal sash putty, nonskinning compounds, nonresilient preformed sealers or impregnated preformed gaskets. Materials which will be exposed to view and unpainted shall be gray or neutral color.

## 2.7 GLAZING TAPE

- A. Butyl-polyisobutylene preformed sealant complying with AAMA 804.1 for Channel Glazing.

## 2.8 GLAZING COMPOUND

- A. Non-hardening, elastic type as recommended by glass manufacturer.

## 2.9 ELASTOMERIC SEALANT

- A. Shall be recommended by sealant manufacturer for glazing applications of project. Sealant shall be chemically compatible with setting blocks, edge blocks, sealing tapes and with sealants used in manufacture of insulating glass units.

## 2.10 PREFORMED CHANNELS

- A. Neoprene, vinyl, or rubber, NAAMM SG-1, as recommended by the glass manufacturer for the particular condition.

#### 2.11 SEALING TAPES

- A. Preformed, semisolid, polymeric based material of proper size and compressibility for the particular condition. Use only where glazing rabbet is designed for tape and tape is recommended by the glass or sealant manufacturer. Provide spacer shims for use with compressible tapes.

#### 2.12 SETTING BLOCKS AND EDGE BLOCKS

- A. Lead, or neoprene of 70 to 90 Shore "A" durometer hardness, chemically compatible with sealants used, and of sizes recommended by the glass manufacturer.

#### 2.13 ACCESSORIES

- A. As required by manufacturer to provide a complete installation, including glazing points, clips, shims, angles, beads, and spacer strips. Provide non-corroding metal accessories. Provide primer-sealers and cleaners as recommended by the glass and sealant manufacturers.

### **PART 3 – EXECUTION**

#### 3.1 PRECAUTIONS AND PROCEDURES

- A. Determine the sizes to provide the required edge clearances by field measuring the actual openings to receive the glass. Grind smooth all edges of glass that will be exposed in finish work. Leave labels in place until the installation is approved, except remove applied labels on insulating glass units as soon as glass is installed. Securely fix movable items or keep in a closed and locked position until glazing compound has thoroughly set.

#### 3.2 GLASS SETTING

- A. Items to be glazed shall be either shop or field glazed using glass of the quality and thickness specified or indicated. Preparation and glazing, unless otherwise specified or approved, shall conform to applicable recommendations in the FGMA Glazing Manual and Glazing Sealing Systems Manual. Aluminum windows, wood doors, and wood windows may be glazed in conformance with one of the glazing methods described in the standards under which they are produced, except that face puttying with no bedding will not be permitted. Handle and install glazing materials in accordance with the manufacturer's instructions. Use beads or stops which are furnished with the items to be glazed to secure the glass in place.

#### 3.3 EDGE CLEARANCE, FACE CLEARANCE AND BITE

- A. The glazing system must provide adequate edge and face clearance to properly cushion the glass, thermally and mechanically isolate the glass from the framing members and prevent glass to metal contact.

#### 3.4 WEEP SYSTEMS

- A. The glazing system must be installed to prevent accumulation of moisture in glazing channels for prolonged periods. Weep holes shall be provided to insure adequate drainage.

#### 3.5 FLOAT GLASS

- A. Cut and set with any visible lines or waves horizontal.

3.6 TEMPERED GLASS

- A. Install glass for fire doors or sidelights in accordance with installation requirements of NFPA No. 80.

3.7 CLEANING

- A. Thoroughly clean glass surfaces and remove labels, paint spots, putty and other defacement. Glass shall be clean at the time the work is accepted.

END OF SECTION