

Architectural Glazing Guide Specification - Walker Textures®

(Walker Glass Specification sections use Master Format section numbering. Specifications are saved as Microsoft Word and are editable per project requirements. Revise footer if architectural firm and project name are required. For questions or additional options please contact Walker Glass at 1-888-320-3030)

Section 08 81 00 – Acid Etched Glazing

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Glass including, heat-treated glass, insulating glass units, silk-screened glass, spandrel glass, laminated glass and **decorative glass**.
- B. Related Sections:
 - 1. Drawings, General and Supplementary Conditions of the Contract, Division 1 and the following specifications sections apply to this section.
 - 2. Section 08 41 00 – Entrances and Storefronts
 - 3. Section 08 42 00 – Entrances
 - 4. Section 08 43 00 – Storefronts
 - 5. Section 08 44 00 – Glazed Curtainwalls
 - 6. Section 08 50 00 – Windows
 - 7. Section 08 60 00 – Roof, Windows and Skylights
 - 8. Section 08 81 13 – Decorative Glass Glazing
 - 9. Section 10 22 00 – Partitions
 - 10. Section 10 28 19.16 – Shower Doors

1.02 REFERENCES

- A. United States
 - 1. ANSI Z97.1 – American National Standard for Glazing Materials Used in Buildings – Safety Performance and Methods Test.
 - 2. CSPC 16 CFR 1201– Safety Standard for Architectural Glazing Materials.
 - 3. ASTM C1036-16 – Standard Specification for Flat Glass.
 - 4. ASTM C1048 – Standard Specification for Heat-Treated Glass – Kind HS, Kind FT Coated and Uncoated Glass.
 - 5. ASTM C1172 – Standard Specification for Laminated Architectural Flat Glass.
 - 6. ASTM E1300 – Standard Practice for Determining the Minimum Thickness and Type of Glass Required to Resist a Specified Load.
 - 7. ASTM C1651 – Standard Test Measurement of Roll Wave Optical Distortion in Heat-Treated Flat Glass.
 - 8. ASTM C1376 – 15 - Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass
 - 9. GANA Glazing Manual: Glass Association of North America.
 - 10. GANA Sealant Manual: Glass Association of North America.
 - 11. GANA Laminated Glass Design Guide: Glass Association of North America
 - 12. ISO 9001:2015 Certification.
 - 13. US Green Building Council – LEED Pilot Credit 55: Bird Collision Deterrence

1.03 SYSTEM DESCRIPTION

A. Design Requirements

1. Provide glazing systems capable of withstanding normal thermal movements, wind loads and impact loads, without failure, including loss due to ineffective manufacture, fabrication and installation, deterioration of glazing materials and other defects in construction.
2. Provide glass thickness and strengths (annealed, heat-strengthened, tempered) required to meet or exceed the following criteria based on project loads and in-service conditions per ASTM E1300.
 - a. Minimum thickness of annealed or heat-treated glass products is selected, so that worst-case probability of failure does not exceed the following:
 - i. 8 breaks per 1000 for glass installed vertically or not over 15 degrees from the vertical pane and under wind action.
 - ii. 5 breaks per 1000 for glass installed 15 degrees from the vertical plane and under action of snow and/or wind.

1.04 SUBMITTALS

- A. Submit 12-inch (305 mm) square samples of each type of glass indicated and 12-inch (305 mm) long samples of each color required for each type of sealant or gasket exposed to view.
- B. Submit Gloss Measurement reading for specified acid-etched finish. Measurements should be obtained with a BYK Gloss micro gloss 60° meter.
- C. Submit manufacturer's product sheet and glazing instructions.
- D. Submit compatibility and adhesion test reports from sealant manufacturer, indicating materials were tested for compatibility and adhesion with glazing sealant, as well as other glazing materials including insulating units.
- E. Submit reports from fabricated glass manufacturer indicating that the glass meets the requirements of any security test. Reports specified on the drawings.
- F. Mock-ups – Refer to Division 8, Section “Aluminum Framed Curtain Walls”, “Aluminum Entrances and Storefronts”, “Aluminum Windows”, “All-Glass Entrances and Storefronts”, “Roof, and Skylight” and “Glazed Curtainwalls” for requirements applicable to mock-ups.

1.05 QUALITY ASSURANCE

- A. Acid etched glass properties must comply with Walker's Textures® properties for Opaque, Velour, Satin or Satinlite acid etched glass products.
- B. Minimum to maximum gloss ranges must comply with Walker's Textures® gloss range for Opaque, Velour, Satin or Satinlite acid etched glass products.
- C. Comply with published recommendations of glass product manufacturers and organizations below, except where more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this section or referenced standards.
 1. GANA Publications
 2. AAMA Publications
 3. IGMA Publications
- D. Safety glass products in the United States comply with CPSC 16 CFR 1201 for Category II materials.
- E. Insulating glass products are to be permanently marked either on spacers or at least one insulating unit component with appropriate label of inspecting and testing agency listed below:
United States – Insulating Glass Certification Council (IGCC)
- F. Manufacturer to be ISO 9001:2015 Certified.

1.06 HANDLING, FABRICATION AND INSTALLATION

Comply with manufacturer's instructions. (To include current Handling, Fabrication and Installation guidelines go to <http://walkerglass.com/pdf-page-guidelines-for-handling/> and to <http://walkerglass.com/pdf-page-bird-friendly-booklet/> for current version).

- A. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- B. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
- C. Exercise care to prevent damage to glass and damage/deterioration to coating on glass.

1.07 PROJECT SITE CONDITIONS

- A. Field Measurement: When construction schedule permits, verify field measurements with drawing dimensions prior to fabrication of glass products.

1.08 WARRANTY

To include warranty specifications please go to <http://walkerglass.com/pdf-page-warranty/> or to <http://walkerglass.com/pdf-page-bird-friendly-booklet/>

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturer is used in the section to refer to a firm that produces primary glass or fabricated glass as defined in the referenced glazing standards.

2.02 MATERIALS

Acid-etched glass only. Simulated acid-etched, ceramic frit or other forms of coatings on the glass are not allowed.

A. MONOLITHIC ACID ETCHED GLASS

(Note: Select Acid Etched Finish(es) and corresponding thickness(es) as required for the project. Delete all other selections)

1. Glass Type: Walker Textures[®], Montreal, Canada

Velour Finish

Clear [3mm] [4mm] [5mm] [6mm] [8mm][10mm][12mm][15mm][19mm]
Bronze [3mm] [5mm] [6mm][10mm][12mm]
Grey [3mm][5mm][6mm][10mm][12mm]
Blue [6mm]
Black [5mm][6mm]
Low iron [3mm][5mm][6mm][8mm][10mm][12mm][15mm][19mm]

Satin Finish

Clear [3mm] [4mm] [5mm] [6mm] [8mm][10mm][12mm][15mm][19mm]
Bronze [3mm] [5mm] [6mm][10mm][12mm]
Grey [3mm][5mm][6mm][10mm][12mm]
Blue [6mm]
Black [5mm][6mm]
Low iron [3mm][5mm][6mm][8mm][10mm][12mm][15mm][19mm]

Opaque Finish

Clear [3mm] [4mm] [5mm] [6mm] [8mm][10mm][12mm][15mm][19mm]
Bronze [3mm] [5mm] [6mm][10mm][12mm]
Grey [3mm][5mm][6mm][10mm][12mm]
Blue [6mm]
Black [5mm][6mm]
Low iron [3mm][5mm][6mm][8mm][10mm][12mm][15mm][19mm]

Satinlite Finish

Clear [3mm] [5mm] [6mm] [10mm][12mm]

Low iron [3mm] [5mm] [6mm] [10mm][12mm]

2. Gloss Range: Minimum _____° to Maximum _____°
Go to <http://walkerglass.com/pdf-page-gloss-range/> for gloss measurements.
3. Acid Etched Glass Properties
To include properties on wear, stain or scratch resistance, go to: <http://walkerglass.com/pdf-page-product-specifications/>

To include properties on daylight transmittance and diffusion go to:
<http://walkerglass.com/pdf-page-product-specifications/>
4. Glass Strength: (Annealed, Heat-Strengthened, Tempered)
5. Etch Orientation: Position [1] (all finishes), [2] (all finishes), [1 & 2] (all finishes except Satinlite)
6. Monolithic Glass Performance: To include current performance data go to: <http://walkerglass.com/pdf-page-product-specifications/>
7. United States Requirements
 - i. Annealed float glass shall comply with ASTM C1036 Type I, Class 1 (clear), Class 2 (tinted), Quality Q3.
 - ii. Heat-Strengthened (HS) float glass and Tempered (FT) float glass shall comply with ASTM C1048, Type I, Class 1 (clear), Class 2 (tinted), Quality Q3.

B. MONOLITHIC PATTERNED ACID-ETCHED GLASS

(Note: Select corresponding glass types as required for the project. Delete all other selections)

1. Glass Type: Walker Textures® Nuance, Montreal, Canada
 - i. Pattern number (select from current offering)
Clear [3mm] [4mm] [5mm] [6mm] [8mm][10mm][12mm][15mm][19mm]
Low iron [3mm][5mm][6mm][8mm][10mm][12mm][15mm][19mm]
 - ii. Custom pattern as per drawing
2. Glass Type: Walker Textures® Transition, Montreal, Canada
 - i. Custom True Fade or Gradient as per drawing
Clear [3mm] [4mm] [5mm] [6mm] [8mm][10mm][12mm][15mm][19mm]
Low iron [3mm][5mm][6mm][8mm][10mm][12mm][15mm][19mm]

C. MONOLITHIC BIRD FRIENDLY ACID-ETCHED GLASS

(Note: Select Acid Etched Finish(es) or patterns and corresponding glass types as required for the project. Delete all other selections)

1. Glass Type: Walker Textures® AviProtek®, Montreal, Canada (Acid-etched markers)
 - i. Patterns [211] [213] [214] [215] [216] [217] [219] [220] [221] on [position 1]
 - ii. Full surface etching: [position 1] [position 2]
 - iii. [Clear glass 6mm] [Low Iron glass 6mm]
 - iv. Threat factors based on the American Bird Conservancy tunnel experiment:
 - a. Threat factor: [Pattern 211 on position 1: 23] [Pattern 213 on position 1: 29.8] [Pattern 214 on position 1: 30]
 - b. Full surface: [5 on position 1] [25 on position 2]
2. Glass Type: Walker Textures® AviProtek® T, Montreal, Canada (Transparent UV markers on position 1)
 - i. Patterns [701] [713] [714] on [position 1]
 - ii. [Clear glass 6mm] [Optiwhite glass 6mm]
 - iii. Threat factor based on Dr. Daniel Klem's field experiment: 31 (Pattern 713)

D. LOW-E COATED ACID-ETCHED GLASS

(Note: Select Acid Etched Finish(es) or patterns and corresponding glass types as required for the project. Delete all other selections)

1. **Position 1** - Glass Type: Walker Textures® Montreal, Canada
 - i. Full surface acid-etched glass: select from section A. above (except Satinlite)
 - ii. Patterned acid-etched glass: select from section B. 1.
 - iii. Bird-friendly acid-etched glass: select from section C. 1. Above
2. **Position 2** - Glass Type: Solarban® Solar Control Low-E Glass by Vitro Glass
 - i. [Solarban® 60 VT] [Solarban® 70XL VT]
 - ii. Monolithic Glass Performance: The Walker Textures® acid-etched finishes do not have any significant impact on solar performance values. Therefore, values will be similar to glass without acid-etched glass.
 - iii. For complete specifications on Solarban® Solar Control Low-E Glass please contact the customer service department at Vitro Glass

E. HEAT-TREATED FLOAT GLASS

Glass to be heat-treated by horizontal (roller hearth) process with inherent roller-wave distortion parallel to the bottom edge of the glass as installed when specified.

F. INSULATING GLASS (IG) UNITS

(Please contact Walker Glass to verify corresponding product availability for appropriate acid etched finish, glass substrate and thickness).

G. MONOLITHIC TWO-PLY LAMINATED GLASS

(Please contact Walker Glass to verify corresponding product availability for appropriate acid etched finish, glass substrate and thickness).

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protection
 1. Handle and store product according to manufacturer's recommendations.

3.02 INSTALLATION

- A. Install products using the recommendations of the manufacturers of glass, sealants, gaskets and other glazing materials, except where more stringent requirements are indicated, including those in the "GANA Glazing Manual."

3.03 CLEANING

POST INSTALLATION CLEANING AND MAINTENANCE

To prevent permanent damage and maintain visual and aesthetic quality, acid-etched glass products should be protected during construction and must be properly cleaned after installation and as part of routine maintenance.

To include current Post Installation Cleaning and Maintenance guidelines go to <http://walkerglass.com/pdf-page-guidelines-for-handling/> or to <http://walkerglass.com/pdf-page-bird-friendly-booklet/>

END OF SECTIONS

CONFIDENTIAL