

SECTION 08 81 00 - GLAZING

PART I - GENERAL

1.1 SUMMARY

- A. Glass and glazing for insulated exterior window units and interior storefront or borrowed light openings.

1.2 REFERENCES

- A. Glass Association of North America (GANA) Glazing Manual

1.3 QUALITY ASSURANCE

- A. Conform To *Flat Glass Marketing Association (FGMA) Glazing Manual For Glazing Installation Methods.*

PART 2 - PRODUCTS

2.1 INSULATED GLAZING (IG) UNITS

- A. Hermetically sealed double and triple glazed units with the following characteristics:
 - 1. Note: for aluminum clad wood windows, windows are shipped glazed by the window manufacturer. An air space that is 1/2" does not apply to historic aluminum clad wood replacements as sash frame are not large enough to support glass that is one inch thick. Windows are typically similar to Cardinal Glass Low E 272 which has 2 layers of silver oxide for the low E coating. This yields a U of .3, SHGC of .29, and VLT of 72%
 - 2. Note 2: Values below are based on clear glass 1/4" thick with a single low e film on the #2 surface readily available.
 - 3. Minimum glass thickness: shall be determined by manufacturer
 - 4. Warranty: 10years
 - 5. Quality: Float glass, clear. Certified through Insulating Glass Certification Council (IGCC) to ASTM E2190.
 - 6. Airspace: 1/2" min.; Argon gas filled Low-e Coating: #2 surface
 - 7. Winter U-factor/U-value: 0.29
 - 8. Summer U-factor/U-value 0.27
 - 9. Solar Heat Gain Coefficient 0.39
 - 10. Shading Coefficient 0.45
 - 11. Tinting: Not recommended especially in historic preservation projects. If specified, it must be from manufacturer's standard colors.
 - 12. Size: Shall not exceed 4'-0" x 8'-0"
 - 13. Weight: Shall not exceed 210 lbs.
- B. All IG units shall be removable / replaceable with removable stops.

2.2 FLOAT GLASS

- A. Annealed float glass shall comply with ASTM C1036, Type 1, Class 1 (clear)

- B. Heat strengthened float glass shall comply with ASTM C1048, Type 1, Class 1 (clear), Class 2 (tinted), Quality Q3, Kind HS.
- C. Tempered float glass shall comply with ASTM C1048, Type 1, Class 1 (clear), Class 2 (tinted), Quality Q3, Kind FT.
- D. Laminated glass to comply with ASTM C1172.
- E. Glass shall be annealed, heat strengthened or tempered as required by codes, or as required to meet thermal stress and wind loads.

2.3 BUTT GLAZING

- A. Shall not be used in exterior locations.

2.4 OBSCURE GLASS

- A. Shall be used in toilet room windows. *[Note to AE: All other locations require verification with the Owner.]*
- B. Pattern shall be common from several different manufacturers to facilitate replacement and matching in the future.

PART 3 - EXECUTION

3.1

END OF SECTION 08 81 00

This section of the *U of I Facilities Standards* establishes minimum requirements only.
It should not be used as a complete specification.