

SECTION 08 51 13 - ALUMINUM WINDOWS

PART I - GENERAL

1.1 SUMMARY

- A. Extruded aluminum windows, thermally broken, shall be the standard for all exterior applications.
- B. Where it is desired to have wood on the interior surfaces, aluminum clad, wood windows may be provided. These shall conform, at a minimum, to AAMAA101-97 grade C. Exterior cladding shall be extruded aluminum. Roll formed cladding will not be accepted. See *Section 08 52 13* for aluminum clad wood windows.
- C. *[Note to AE: For those buildings listed on the National Register of Historic Places or which are considered eligible for listing, the University's Historic Preservation Officer shall be consulted for window selection.]*
- D. Fixed window units such as those specified below are permitted only for punched openings. Curtain wall construction shall be used for all large openings.

1.2 REFERENCES

- A. ANSI/AAMA 101 85 Specifications for Architectural Windows.
- B. ASTM B221 Aluminum Alloy Extruded Bars, Rods, Wire, Shapes and Tubes.
- C. ASHRAE 90.1 (for thermal performance).

PART 2 - PRODUCTS

2.1 ALL ALUMINUM WINDOWS

- A. Performance: All aluminum windows shall conform to AAMA 101-97. Hung windows shall meet or exceed HC 45. Hinged windows shall meet or exceed HC 65.
- B. Acceptable Manufacturers for windows constructed entirely of aluminum (exclusive of steel reinforcing) Note manufacturers listed below may provide fixed and/or operable windows:
 - 1. Kawneer
 - 2. Wausau
 - 3. Moduline
 - 4. Custom Windows
 - 5. Graham
 - 6. Winstrom

2.2 FINISHES

- A. All aluminum components shall have a durable, maintenance-free finish.
- B. Kynar 500 – finish shall be 70% PVDF resin in conformance with AAMA 2605. 1.2 mil.
- C. Kynar coatings shall be chosen from window manufacturer's standard colors – no custom colors.
- D. Anodized - alternatively, finish may be clear or light color anodized finish.

2.3 GLASS & GLAZING

- A. Glass shall have minimum 3/8" air space. Preferably 1/2".
- B. Glass shall have low e coating on #2 or #3 surface.

C. Argon filled airspace.

2.4 FIXED SASH UNITS

A. Fixed sash that are companions to operating sash listed above shall conform to the minimum requirements for the operable sash of the system in which they are installed.

2.5 EXPANSION AND CONTRACTION

A. Design window and anchors to meet performance requirements, attach to the structure and provide for expansion and contraction of component materials over a temperature range of -30 deg. F to +180 deg. F without causing buckling, stresses on glass, failure of joint seals, undue stress on structural elements, damaging loads on fasteners, reduction of performance or other detrimental effects.

2.6 DOUBLE GLAZED

A. At a minimum, all windows shall be double glazed with 1" insulating glass having a low e film on the #2 or #3 surface.

PART 3 - EXECUTION

3.1

END OF SECTION **08** 51 13

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