

5100 SERIES CURTAIN WALL SYSTEM SPECIFICATION

PART 1 - GENERAL

1.1 Work Included

Furnish labour, materials and services for the complete fabrication, assembly and installation of Series 5100 Framing system manufactured by Commdoor Aluminum. Work to include all necessary accessories, anchors and sealants as required based on the purchase agreement.

1.2 Work Excluded

Structural steel, wood blocking or framing, interior trims, concrete masonry, final cleaning, protection, related work specified elsewhere, convactor covers and trims and ceiling trims.

1.3 Design

The 5100 Series Curtain Wall System to be designed based on the "Open Rain Screen" and "Pressure Equalization" principles

1.4 Performance

Deflection of the vertical mullion to be $< 1/175$ of the span at the specified pressure level.

Permanent Deformation of vertical mullion to be $< 0.2\%$ of the Length of the mullion.

Air Leakage should not exceed $0.06 \text{ (ft}^3\text{/min)/ft}^2$.

1.5 Quality Assurance

The 5100 Series 2" CURTAIN WALL System supplied under this specification must comply to the performance requirements of the Canadian Standards Association CAN3-A440-M90, classification fixed, B7, C5, I=52.1. A copy of the test report from an independent testing laboratory certifying compliance must be furnished upon request by the owner/architect.

1.6 Shop Drawings

All work of this section shall be executed in strict accordance with approved shop drawings.

1.7 Warranty

The work of this section shall be guaranteed against defects of materials and workmanship for a period of one year from date of certificate of substantial completion.

PART 2 - PRODUCTS

2.1 Material

2.1.1 Aluminum Extrusion

A) All extruded aluminum sections to be 6063-T6 alloy or equivalent.

B) Frame members (back section) size will be based on published wind load charts to meet specified wind load.

Available back section sizes 3" (76.2mm) and 4" (101.6mm).

2.1.2 Thermal Break

If applicable, extruded virgin polyvinyl chloride (P.V.C).

2.1.3 Glazing Material

Exterior Glazing:

1) Macro-polyisobutylene tape with a continuous built in shim; highly adhesive and elastic, or

2) Extruded thermoplastic elastomers gasket.

Interior Glazing:

Extruded thermoplastic elastomers gasket.

2.1.4 Fasteners

Fasteners shall be zinc plated.

2.2 Fabrication

Fabrication will be carried out according to the approved shop drawings. All joints will be assembled tight using manufactures provided assembly brackets to maintain the product design performance.

2.3 Finish

2.3.1 Anodize

Anodic Oxide Treatments are to be processed in accordance with AAMA designations.

M12C22A31 class II designation is for #17

Clear anodized finish (0.0004).

M12C22A41 class I designation is for #14

Clear Anodized finish (0.0007) and colour

finishes such as #26 light bronze, #40 bronze and #29 black.

2.3.2 Paint

Thermosetting Acrylic Enamel coating are to be applied in accordance with AAMA 603.8. Specify colour and type from PPG. Standard charts.

2.3.3 Fluoropolymer paint Coating

Based on Kynar 500 Resins are to be applied in accordance AAMA 605.2. Specify colour from Valspar current chart.

PART 3 - EXECUTION

3.1 Protection

Aluminum shall be isolated from concrete, mortar, plaster and dissimilar materials with a coating of Bituminous paint. Exposed aluminum surface shall be protected from long term contamination of mortar,

concrete, paint, mud, etc.

Doors and door frames shall be protected from impact damage by wood sheathing and plastic wraps.

3.2 Installation

Commdoor products to be installed according to manufacturers instructions and in conjunction with approved shop drawings. The work shall be performed by qualified skilled personnel using proper equipment in order to expedite the project in an efficient professional manner.

3.3 Cleaning

Interim and final cleaning shall be performed in accordance with the general conditions listing methods outlined in AAMA 609 & 610-02 (2002).