

CURTAIN WALL SPECIFICATIONS

EAP Series 100, 110, 100HP and 110HP Curtain Wall Systems

General

All curtain wall components shall be manufactured and engineered by Engineered Aluminum Products (EAP). Profiles to be based on series 100, 110, 100HP or 110HP curtain wall systems (Architect to specify). Shop drawings and engineered details to be submitted and approved prior to commencement of fabrication.

Material

All aluminum sections shall be aluminum extrusions of 6063 alloy with temper as engineered by manufacturer. All screws, fastening devices, and other components shall be of corrosion resistant material and engineered to perform as intended and sustain imposed loads. Screws subject to corrosion shall be of stainless steel type 304 or double cadmium plated steel. Supporting angles, plates, and accessories of structural steel, shop painted with zinc chromate primer. Aluminum sheet shall be of suitable quality and alloy for the specified finish. Insulated back-up panels shall be of galvanized steel of adequate thickness (typically 20 or 22 gauge) with sealed corners and insulation (minimum 48 kg/m³ density) to specified thickness or R-Value. Insulation firmly held in place by welded pins. Gaskets shall be EPDM, neoprene, santoprene, or silicone as required by EAP and shaped to fit the pressure plates and held in compression. Interior glazing seal to be a continuous poly shim tape with integral EPDM shim. Spacers, setting blocks and shims are of appropriate compatible material, length and hardness to suit the intended purpose. Thermal break material for the 100 and 110 series shall be PVC. The 100HP and 110HP series shall use a fibreglass pressure plate and optional thermal break using the pour and debridge process constructed with materials by Azon or equal with optional Azo Braded mechanical locks to minimize dry shrinkage. Glass as selected by the Architect.

Finish

All exposed surfaces shall be finished to Aluminum Association Standards and either:

- a) Anodized AAC22Axx
- b) Fluoropolymer Kynar 500 or Hylar 5000 (eg. PPG Duranar or Duranar XL®)
- c) Duracron or other comparable finishes

Design

EAP curtain wall systems shall be designed on the rain screen principle with internal weep drainage and pressure equalization for no water infiltration and limited air infiltration or exfiltration.

Fabrication shall take place in EAP or an EAP approved plant to maintain the highest quality standards. Anchoring details shall provide for adequate adjustment and compensate for building and thermal movements. Frame profile selection to meet all loading requirements and applicable building codes. Provision shall be made within the system for adequate retention, structural support, and thermal movement of the glazing. Curtain wall systems by EAP shall be tested and have passed the following standards:

- Static Pressure Air Infiltration (ASTM E283)
- Static Pressure Air Exfiltration (ASTM E283)
- Static Pressure Water Infiltration (ASTM E331)
- Structural Loading (ASTM E330)
- Thermal Performance testing and simulations including 63-GP-12M

The HP series have been more rigorously tested for thermal performance, and can provide U-Values up to $0.79~\text{W/m}^2 \cdot ^{\circ}\text{C}$. Please contact EAP for thermal simulation and test results.

Options

EAP curtain wall systems are designed to incorporate additional glazing system components including doors, sloped glazing, sliding fronts, windows and vents.

Installation

Installation shall be by experienced technicians to EAP's approval, instructions and site inspection to the highest quality standards. Installation must adhere to EAP's engineering and shop drawings. Components that contact dissimilar materials shall receive a protective coating.

Guarantee

The curtain wall system shall be guaranteed to be free from defective materials and installation deficiencies for a period of one year from the date of substantial completion, or as otherwise previously agreed to.

Technical Assistance

EAP provides engineering expertise for individual projects to help meet your design requirements including many custom extrusions and solutions. Our engineering department is available for consultation at any stage of the project. Contact our office for our full catalogue.

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