

*Product Name:*

TMW 450 Aluminum Glazed Curtain Wall - Section 08930

*Manufacturer's Name:*

Pittco Architectural Metals, Inc.



PITTCO ARCHITECTURAL METALS, INC.

2011

PRODUCT DESCRIPTION

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*This document is a Pittco product information sheet, intended to be used beside or in conjunction with the comparable Pittco master specification Section 08930 or some other commercially available 3-part master specification section on a similar subject. The specifier may cut/copy text between this data sheet and your project specification.*

## PRODUCT FEATURES

### BASIC USES / RELATED USES

Framing is designed for storefront and curtain wall glazing assembly

Vertical mullions are open back aluminum members, with solid face and flush closure side plates forming tubular members for use on single spans

Horizontal mullions are of hollow aluminum with solid face members and removable glazing stops

Corners are configured for inside and outside 90 degrees

Glazing is insulating glass unit or single pane with adapters

Glass may be transparent, opaque, or decorative types

Assembly may be vertically or horizontally butt-glazed

Framing is intended for tall one story strip window or multi-story curtain wall applications

Framed assembly may be fitted to most rigid and stable framed opening assemblies

### PRODUCT ATTRIBUTES AND CHARACTERISTICS

Aluminum frame members are thermally improved

Glass can be glazed from interior or exterior, butt-glazed glass must be glazed from exterior

Framing and glazing stops are designed for glass and panels

Wind pressure resistance and pressure equalization are standard within the frame assembly

Weep containment and condensate water collection and drainage to the exterior at concealed weeps are standard

Door sub-frame adaptor is available

### SELECTION CRITERIA

Quality, economy, and high performance are provided at a reasonable cost

Framing is designed for Interior or exterior environments

### APPLICABLE STANDARDS, RELATED REFERENCES

AA (Aluminum Association) – Designation System for Aluminum Finishes

AAMA SFM-1-87 – Aluminum Storefront and Entrance Manual

AAMA MCWM-1-89 – Metal Curtain Wall Manual

AAMA CW-DG-1-96 – Aluminum Curtain Wall Design Guide Manual

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AAMA 501.1-05 – Standard Test Method for Water Penetration of Windows, Curtain Walls and Doors using Dynamic Pressure

AAMA 611-98 – Voluntary Specification for Anodized Architectural Aluminum

AAMA 1503-98 – Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors, and Glazed Wall Sections

AAMA 2604-05 – Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels

AAMA 2605-05 – Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels

ASTM A123/A123M – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

ASTM B209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate

ASTM B209M – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate [Metric]

ASTM B221 – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wires, Profiles, and Tube

ASTM B221M – Standard Aluminum-Alloy Extruded Bars, Rods, Wires, Profiles, and Tube [Metric]

ASTM E283 – Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen

ASTM E330 – Standard Test Method for Structural Performance of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference

ASTM E331 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference

**QUALITY, TESTS, CERTIFICATIONS, AND APPROVALS**

Air Infiltration: Maximum leakage of 0.04 cfm/sq ft (0.2 L/m<sup>2</sup>.s) when measured in accordance with ASTM E283 at a test pressure of 6.24 psf (300 Pa), 0.00 cfm/sq ft (0.2 L/m<sup>2</sup>.s) for butt-glazed applications

Static Water Leakage: No uncontrolled leakage, when measured in accordance with ASTM E331 at a test pressure difference of 15 psf (720 Pa)

Dynamic Water Leakage: No uncontrolled leakage, when measured in accordance with AAMA 501.1 at a test pressure difference of 15 psf (720 Pa) for butt-glazed applications

Structural Performance: Maximum deflection less than 1/175 of the span length and no damage to the assembly, when measured in accordance with ASTM E330 at a test pressure of 50 psf (2390 Pa)

Seismic Racking (UBC 2334) of 1 1/2 inch

Insulations U-Factor: Vertical butt-glazed 0.58 BTU/hr/sq ft/degrees F when measured in accordance with AAMA 1503 with 1" clear glass unit (1/, 1/2, 1/4)

Condensation Resistance Factor (CRF): 58 when measured in accordance with AAMA 1503 with 1" glass unit (1/4, 1/2, 1/4), 54 for vertical butt-glazed

**PACKAGING, HANDLING, AND PROTECTION INSTRUCTIONS**

Packaged in specially designed heavy cartons or pre-fabricated and shipped assembled

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SPECIAL WARRANTY

One (1) year

SAFETY PRECAUTIONS

Normal precautions required

AVAILABILITY

Framing is available in all regions of USA – refer to Internet web site for locations and addresses of distributors

COST

Varies with elevation, configuration and finish desired

## **PRODUCT PROPERTIES**

### **MATERIAL, COMPOSITION AND DESIGN**

Aluminum: 6063-T6 alloy and temper, to ASTM B221 or ASTM B221M

Fasteners: Stainless steel, or zinc plated carbon steel

Perimeter Anchors: Aluminum, or steel that will be isolated from aluminum components

Glazing Gaskets: Wedge-type, Ethylene Propylene Diene Monomer (EPDM) rubber with non-stretch cord

Glass Stops: Snap-in type

Thermal Barrier: EPDM thermal separator at exterior gasket line

### **SHAPE AND DIMENSIONS**

Frame Size: 2 x 6-13/16 inch (51 x 173 mm)

Glass Edge Bite: 1/2 inch (13 mm), 3/4 inch (19 mm) for butt-glazed

Glazing Thickness Accepted: 1/8 inch (3 mm) to 1-1/8 inch (29 mm) in increments of 1/16 inch (1.5 mm) except 7/16 inch (11 mm), 9/16 inch (14 mm), 11/16 inch (17 mm), and 13/16 inch (21 mm)

### **SHOP FABRICATION AND ASSEMBLY**

Provide for flush glazing on all sides with no projecting stops

Configurations:

- Two-piece snap together mullions
- Solid tubular mullions, assembled to specially designed shear block clips

Accessories:

- Expansion Mullions

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- Corner Mullions
- Open Back Perimeter Members
- Flashing
- Heavy Duty Mullions
- Door Subframes

**COLORS AND TEXTURES**

- Architectural anodic coating, in accordance with AAMA 611;
  - Aluminum Association Designation.
    - AA-M10C22A31 – Class II – (Pittco #42 Clear)
    - AA-M10C22A41 – Class I – (Pittco #43 Clear)
    - AA-M10C22A44 – Class I – (Pittco #59 Champagne)
    - AA-M10C22A44 – Class I – (Pittco #60 Light Bronze)
    - AA-M10C22A44 – Class I – (Pittco #61 Medium Bronze)
    - AA-M10C22A44 – Class I – (Pittco #62 Dark Bronze)
    - AA-M10C22A44 – Class I – (Pittco #63 Black)
- Architectural organic coating, in accordance with AAMA 2605 (70% Kynar 500®);
  - Finish on exposed aluminum shall be compliant with the performance standards set forth in AAMA 2605, “Superior Performing Organic Coatings on Aluminum”.
  - Type: Factory Applied – High Performance, 70% Polyvinylidene Fluoride (PVDF) coating based on Elf Atochem, Inc. Kynar 500® or Ausimount USA, Inc. Hylar 5000® resin, formulated by a Licensed Paint Manufacturer and applied by the Paint Manufacturer’s Warranty Approved Applicator.
  - Pre-treatment: Applicator to pre-treat the aluminum with solutions to remove Organic and Inorganic Surface Soils and Residual Oxides, followed by a Chrome Phosphate Conversion Coating, at a minimum 40 mg/sq ft to ensure adhesion of paint to aluminum.
  - Specify color code, e.g. UC 40577(Duranar Black)
- Architectural organic coating, in accordance with AAMA 2604 (70% Kynar 500®);
  - Finish on exposed aluminum shall be compliant with the performance standards set forth in AAMA 2604, “High Performance Organic Coatings on Aluminum”.
  - Type: Factory Applied – High Performance, 50% Polyvinylidene Fluoride (PVDF) coating based on Elf Atochem, Inc. Kynar 500® or Ausimount USA, Inc. Hylar 5000® resin, formulated by a Licensed Paint Manufacturer and applied by the Paint Manufacturer’s Warranty Approved Applicator.
  - Pre-treatment: Applicator to pre-treat the aluminum with solutions to remove Organic and Inorganic Surface Soils and Residual Oxides, followed by a Chrome Phosphate Conversion Coating, at a minimum 40 mg/sq ft to ensure adhesion of paint to aluminum.
  - Specify color code, e.g. UC 40577(Duranar Black)

**PRODUCT PLACEMENT**

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PREPARATION WORK

Ensure openings are of proper size, and are plumb, square, level and in the proper location and alignment

INSTALLATION

Align installed assembly plumb and level, free of warp or twist

Maintain dimensional tolerances, aligning with adjacent work

Seal joints between framing and building structure watertight

Follow guidelines in Pittco Fabrication, Sealant and Erection Brochure

START-UP AND OPERATION

Not applicable

OWNER'S MAINTENANCE INSTRUCTIONS

Wash surfaces with warm water and mild soap; wipe clean, at least once a year

**Corporate Identification**

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**Technical Services Available**

Toll-Free: (800) 992-7488

**Classification and Filing**

MasterFormat  
Subset of Section 08900 - Curtain Wall  
UniFormat  
Section B2030 - (exterior entrance frames) or C1020 (interior entrance frames)