SECTION 083213: SLIDING ALUMINUM-FRAMED GLASS DOORS

This suggested guide specification has been developed using the current edition of the Construction Specifications Institute (CSI) “Manual of Practice,” including the recommendations for the CSI three-part Section Format and the CSI Page Format. Additionally, the development concept and organizational arrangement of the American Institute of Architects (AIA) MasterSpec® Program has been recognized in the preparation of this guide specification. Neither CSI, AIA, USGBC, nor ILFI endorse specific manufacturers and products. The preparation of the guide specification assumes the use of standard contract documents and forms, including the “Conditions of the Contract,” published by the AIA.

EDITOR NOTE: Instructions to the editor appear in RED. This style does not exist in the standard CSI template.

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section covers Kawneer Sliding Aluminum-Framed Glass Doors, including factory glazing, operating hardware and accessories designed for exterior applications.

B. Types of Kawneer Sliding Aluminum-Framed Glass Doors include:

EDITOR NOTE: Choose Sliding Aluminum-Framed Glass Door type based on project requirements. Delete types that do not apply to this project.

1. TR-8300 Sliding Glass Doors:
   a. 4-5/8" (117.5 mm) frame depth
   b. AW-PG50-SD, OX or XO Unit
   c. AW-PG50-SD, OXO Unit
   d. AW-PG50-SD, OXXO Unit
   e. 10 psf (479 Pa), 12 psf (575 Pa) or 15 psf (718 Pa) Frame sill option

C. Related Sections:

EDITOR NOTE: The sections listed below are specified elsewhere. However, Kawneer recommends single-source responsibility for all of these sections as described in the Quality Assurance article below.

1. 072700: Air Barriers
2. 079200: Joint Sealants
3. 084113: Aluminum-Framed Entrances and Storefronts
4. 084313: Aluminum-Framed Storefronts
5. 084329: Sliding Storefronts
6. 084413: Glazed Aluminum Curtain Walls
7. 084433: Sloped Glazing Assemblies

8. 085113: Aluminum Windows
9. 086300: Metal-Framed Skylights
10. 087000: Hardware
11. 088000: Glazing
12. 280000: Electronic Safety and Security

1.3 DEFINITIONS

A. For fenestration industry standard terminology and definitions, refer to the Fenestration & Glazing Industry Alliance (FGIA) Glossary (AAMA AG-13).

1.4 PERFORMANCE REQUIREMENTS

A. General Performance:
   1. Sliding Aluminum-framed glass doors system shall withstand the effects of the following performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction.

B. Wind Loads:

EDITOR NOTE: Provide wind load design pressures in PSF and include applicable building code and year edition.

   1. The sliding glass door system shall include anchorage that is capable of withstanding the following wind load design pressures:
      a. Inward: (_____) psf or (_____) Pa
      b. Outward: (_____) psf or (_____) Pa
   2. The design pressures are based on the (_____) Building Code, (_____) Edition.

C. Air Leakage:
   1. The test specimen shall be tested in accordance with ASTM E 283.
      a. The air leakage rate shall not exceed 0.3 cfm/ft^2 at a pressure differential of 6.2 psf (300 Pa).

D. Water Resistance:
   1. The test specimen shall be tested in accordance with ASTM E331 and ASTM E547.
      a. There shall be no water infiltration when tested to a pressure differential of 10 psf (479 Pa) with 10 psf (479 Pa) frame sill.
      b. There shall be no water infiltration when tested to a pressure differential of 12 psf (575 Pa) with 12 psf (575 Pa) frame sill.
      c. There shall be no water infiltration when tested to a pressure differential of 15 psf (718 Pa) with 15 psf (718 Pa) frame sill.

E. Uniform Load Deflection:
   1. A static air design load of 50 psf (2394 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330.
   2. There shall be no deflection in excess of L/175 of the span of any framing member at design load.

F. Uniform Load Structural:
   1. A static air design load of 75 psf (3591 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330.
   2. At a structural test load equal to 1.5 times the specified design load, no glass breakage or permanent set in the framing members in excess of 0.2% of their clear spans shall occur.

G. Energy Efficiency:
   1. Thermal transmittance (U-factor):
      a. Thermal transmittance test results in accordance with AAMA 1503 are based upon 1" (25.4 mm) clear insulating glass [(1/8"), 1/2" spacer and argon fill gas, (1/8") Low-E glass].
      b. When tested to AAMA Specification 1503, the thermal transmittance (U-factor) shall not be more than: 0.55 Btu/(hr·ft^2·°F) (low-e insulating glass) or project-specific (_____) Btu/(hr·ft^2·°F) per AAMA 507 or (_____) Btu/(hr·ft^2·°F) per NFRC 100.
   2. Condensation Resistance Factor (CRF):
      a. If using CRF, when tested to AAMA 1503, the CRF shall not be less than: 58.

1.5 SUBMITTALS

A. Product Data:
   1. For each type of sliding aluminum-framed doors indicated, include:
      a. Construction details
      b. Material descriptions
      c. Dimensions of individual components and profiles
      d. Hardware
      e. Finishes
   2. Recycled Content:

      EDITOR NOTE: Include these Recycled Content specifications if needed to meet project requirements or for a project that includes Green Building Certifications such as LEED, Living Building Challenge (LBC), etc.

      EDITOR NOTE: If Recycled Content requirements are not specified, prime (zero recycled content) aluminum could be supplied.

      a. Provide documentation that aluminum has a minimum of 40% mixed pre- and post-consumer recycled content.
      b. Provide a sample document illustrating project-specific information that will be provided after product shipment.
      c. After product has shipped, provide project-specific recycled content information:
         1) Indicate recycled content, including the percentage of pre- and post-consumer recycled content per unit of product.
         2) Indicate the relative dollar value of recycled content product to the total dollar value of product included in the project.
         3) Indicate the location for recovery of recycled content.
         4) Indicate the location of the manufacturing facility.
   3. Environmental Product Declaration (EPD):

a. Include an Aluminum Extrusions EPD.

B. Shop Drawings:
1. Plans
2. Elevations
3. Sections
4. Details
5. Hardware
6. Attachments to other work
7. Operational clearances
8. Installation details

C. Samples for Initial Selection:
1. Provide samples for units with factory-applied color finishes.
2. Provide samples of hardware and accessories involving color selection.

D. Samples for Verification:
1. Provide a verification sample for sliding aluminum-framed glass doors and frame system and required components.

1.6 QUALITY ASSURANCE

A. Installer Qualifications:
1. Installer must have successfully installed the same or similar units required for the project and other projects of similar size and scope.

B. Manufacturer Qualifications:
1. Manufacturer must be capable of fabricating sliding aluminum-framed doors that meet or exceed the stated performance requirements.

C. Source Limitations:
1. Obtain sliding aluminum-framed doors through one source from a single manufacturer.

D. Product Options:
1. Drawings indicate size, profiles, and dimensional requirements of sliding aluminum-framed doors and are based on the specific system indicated. Refer to Division 01 Product Requirements Section. Do not modify size and dimensional requirements.
2. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

E. Mockups:
1. Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
2. Build mockups for the type(s) of sliding aluminum-framed door elevation(s) indicated, in location(s) shown on drawings.

F. Pre-installation Conference:
1. Conduct conference at project site to comply with requirements in Division 01 Project Management and Coordination Section.

1.7 PROJECT CONDITIONS

A. Field Measurements:
1. Verify actual dimensions of sliding aluminum-framed glass door openings by field measurements before fabrication.
2. Indicate measurements on shop drawings.

1.8 WARRANTY

A. Submit manufacturer's standard warranty for owner's acceptance.

B. Warranty Period:
1. Two years from Date of Substantial Completion of the project provided however that in no event shall the Limited Warranty begin later than six months from date of shipment by manufacturer.
2. Insulating glass units: Warrant seal for five years against visual obstruction from film formation or moisture collection between internal glass surfaces, excluding that caused by glass breakage or abuse.

EDITOR NOTE: Contact Kawneer for other time frames.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product:
1. Kawneer Company, Inc.
a. TR-8300 Sliding Glass Doors:
1) 4-5/8" (117.5 mm) frame depth
2) AW-PG50-SD, OX or XO Unit
3) AW-PG50-SD, OXO Unit
4) AW-PG50-SD, OXXO Unit
5) 10 psf (479 Pa), 12 psf (575 Pa) or 15 psf (718 Pa) Frame sill option

B. Subject to compliance with requirements, provide a comparable product by the following:

EDITOR NOTE: Provide information below indicating approved alternatives to the basis-of-design product.

1. Manufacturer: (_____)
2. Series: (_____)
3. Profile Dimension: (_____)
4. Performance Grade: (_____)

C. Substitutions:

1. Refer to Division 01 Substitutions Section for procedures and submission requirements.
2. Pre-Contract (Bidding Period) Substitutions:
   a. Submit written requests ten (10) days prior to bid date.
3. Post-Contract (Construction Period) Substitutions:
   a. Submit written request in order to avoid installation and construction delays.
4. Product Literature and Drawings:
   a. Submit product literature and drawings modified to suit specific project requirements and job conditions.
5. Certificates:
   a. Submit certificate(s) certifying that the substitute manufacturer (1) attests to adherence to specification requirements for sliding aluminum-framed glass door system performance criteria, and (2) has been engaged in the design, manufacture, and fabrication of sliding aluminum-framed glass doors for a period of not less than ten (10) years. (*Company Name*)
6. Test Reports:
   a. Submit test reports verifying compliance with each test requirement required by the project.
7. Samples:
   a. Provide samples of typical product sections and finish samples in manufacturer's standard sizes.

D. Substitution Acceptance:
1. Acceptance will be in written form, either as an addendum or modification.
2. Acceptance will be documented by a formal change order signed by the owner and contractor.

2.2 MATERIALS

A. Aluminum Extrusions:
1. Alloy and temper recommended by sliding aluminum-framed glass door manufacturer for strength, corrosion resistance, and application of required finish.
2. Recycled Content:

EDITOR NOTE: Include these Recycled Content specifications if needed to meet project requirements or for a project that includes Green Building Certifications such as LEED, Living Building Challenge (LBC), etc.

EDITOR NOTE: If Recycled Content requirements are not specified, prime (zero recycled content) aluminum could be supplied.

   a. Shall have a minimum of 40% mixed pre- and post-consumer recycled content.
   b. Indicate recycled content, including the percentage of pre- and post-consumer recycled content per unit of product.
   c. Indicate the relative dollar value of recycled content product to the total dollar value of product included in the project.
   d. Indicate the location for recovery of recycled content.
   e. Indicate the location of the manufacturing facility.

B. Glazing Gaskets/Setting Blocks:

1. Manufacturer's standard glazing system of black, resilient glazing gaskets, setting blocks, and shims or spacers, fabricated from an elastomer of type and in hardness recommended by system and gasket manufacturer to comply with system performance requirements.

C. Fasteners:
1. Nonmagnetic stainless steel or other materials must be non-corrosive and compatible with aluminum members, trim hardware, anchors, and other components.

D. Anchors, Clips, and Accessories:
1. Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating.
2. Anchors, clips, and accessories shall provide sufficient strength to withstand the design pressure indicated.

E. Reinforcing Members:
1. Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions or other suitable zinc coating.
2. Reinforcing members must provide sufficient strength to withstand the design pressure indicated.

F. Slide-In-Type Weather-Stripping:
1. Provide woven-pile weather stripping of wool, polypropylene, or nylon pile and resin-impregnated backing fabric.
2. Comply with AAMA 701/702.

G. Thermal Barrier:
1. Kawneer IsoLock® Thermal Break with dual nominal 1/4" (6.4 mm) separation consisting of a two-part chemically curing, high-density polyurethane, which is mechanically and adhesively joined to aluminum storefront sections.
2. Thermal break shall be designed in accordance with AAMA TIR-A8 and tested in accordance with AAMA 505.

H. Sealant:
1. For sealants required within fabricated sliding door, provide sliding door manufacturer's standard, permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.

2.3 SLIDING GLASS DOOR SYSTEM

A. Brackets and Reinforcements:
1. Manufacturer's standard high-strength aluminum with non-staining, non-ferrous shims for aligning system components.

B. Fasteners and Accessories:
1. Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories must be compatible with adjacent materials.
2. Where exposed, fasteners and accessories shall be stainless steel.

C. Perimeter Anchors:
   1. When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.

D. Packing, Shipping, Handling, and Unloading:
   1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

E. Storage and Protection:
   1. Store materials so that they are protected from exposure to harmful weather conditions.
   2. Handle material and components to avoid damage.
   3. Protect material against damage from elements, construction activities, and other hazards before, during, and after installation.

F. Fasteners and Accessories:
   1. Manufacturer's standard corrosion-resistant, non-staining, non-bleeding fasteners and accessories must be compatible with adjacent materials.
   2. Where exposed, fasteners and accessories shall be stainless steel.

G. Perimeter Anchors:
   1. When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.

H. Packing, Shipping, Handling, and Unloading:
   1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

I. Storage and Protection:
   1. Store materials so that they are protected from exposure to harmful weather conditions.
   2. Handle material and components to avoid damage.
   3. Protect material against damage from elements, construction activities, and other hazards before, during, and after installation.

2.4 GLAZING

A. Glazing shall comply with requirements in Division 08 Glazing Section.

B. Glazing System:
   1. Glazing method shall be a wet/dry type in accordance with manufacturer's standards.
   2. Exterior glazing shall be silicone back bedding sealant.
   3. Interior glazing shall be snap-in type glazing beads with an interior gasket in accordance with AAMA 702 or ASTM C 864.

C. Glass:
   1. 1" insulating glass made with mandatory safety glass lites.
      a. Exterior glass lite.
         1) Thickness 1/8".

2) Tint: clear.
3) Type: tempered.
4) Coating: soft coat [hard coat] Low-E on #2 surface.

b. Interior glass lite.
1) Thickness 1/8".
2) Tint: clear [pattern #62 obscure].
3) Type: tempered.
4) Coating: soft coat low E on #3 surface [hard coat low E on #3 surface;] [hard coat low E on #4 surface].

D. Glazing Gaskets:
1. Manufacturer's standard compression types
2. Replaceable, extruded EPDM rubber

E. Spacers and Setting Blocks:
1. Manufacturer's standard elastomeric type

2.5 HARDWARE

A. General Hardware Requirements:
1. Provide manufacturer's standard hardware.
2. Hardware shall be fabricated from aluminum, stainless steel, or other corrosion-resistant material that is compatible with aluminum.
3. Hardware shall be designed to smoothly operate, tightly close, and securely lock sliding aluminum-framed glass doors.

B. Standard Operating Panel Hardware:
1. Two plated steel [stainless steel] wheel housings conforming to AAMA 906-07, each housing contains two adjustable ball bearing plated steel [stainless steel] wheels designed to fit over sill raised track bead covered with a stainless steel cap.
2. Black [brass] handle and lock assembly, mortise lock design with interior pull handle and thumb latch, and exterior pull handle with key cylinder.
3. Weatherstrip:
a. Secured in extruded ports, double rows on panel perimeters, rigid PVC weatherseal in one side of the horizontal panel rails, and pile conforming to AAMA 701/702-04 with polypropylene center fin in remaining locations.
4. Optional: One pair of stainless steel tandem rollers per sliding panel.
5. Stainless steel roller track cover.
6. Hookbolt lock: 1-point Hookbolt lock.
7. Pull handle exterior: Finger pull.
8. Pull handle interior: ["D" pull] or [extruded finger pull].

2.6 INSECT SCREENS

A. Standard Screens:

1. 3/4" (19.1) x 2" (50.8) x 0.125" (3.2) extruded tubular aluminum frame finished to match sliding aluminum-framed doors.
2. Half; held in integral exterior head and sill tracks containing raised track beads.
3. Two pairs of spring-loaded adjustable plated steel [stainless-steel] wheels.
4. Corners: mitered, gusset reinforced, and crimped.
5. Interior and exterior pull handles and latch.
6. 18 x 16 dark fiberglass [aluminum] mesh secured with PVC spline.

B. Heavy Duty Screens for XO or OX configurations only:
1. Half; held in integral exterior head and sill tracks containing raised track beads.
2. Two pairs of spring-loaded adjustable plated steel [stainless-steel] wheels.
3. 1-1/4" (31.8) x 2" (50.8) x 0.125" (3.2) extruded tubular aluminum frame finished to match sliding aluminum-framed doors.
4. Corners: mitered, gusset reinforced, and crimped.
5. Interior and exterior pull handles and latch.
6. 18 x 16 dark fiberglass [aluminum] mesh secured with PVC spline.

2.7 FABRICATION

A. Fabricate sliding aluminum-framed glass doors in sizes indicated.

B. Include a complete system for assembling components and anchoring doors.

C. Fabrication requirements:
1. Thermally broken sliding aluminum-framed glass doors shall be reglazable without dismantling perimeter framing.
2. Sliding Door construction:
   a. Frame: Head and sill field-fastened to jambs with stainless-steel screws, two per head frame corner and four per sill corner: sill-to-jamb corner field-sealed.
   b. Sill protection: Mill-finish aluminum threshold cover.
   c. Water control: Frame sill with separate and offset weep slots for each track to allow water to drain by gravity and resist wind-driven water.
   d. Panels: Vertical panel stiles coped and fastened to horizontal panel rails with a telescope-design joint secured with one stainless-steel screw per panel cover; corners sealed by door manufacturer with sealant conforming to AAMA 800-07.
   e. Panel design: Mechanical meeting stile interlock with two contacts; fixed panel secured by concealed interior anchors and field-sealed to frame; exterior-removal fixed panel; interior-removal operating panel; weep holes for drainage; interior-exposed 2-1/2" (63.5) x 2-1/2" (63.5) x 0.125" (3.2) tubular extruded aluminum reinforcement may be required when panels are over 84" (2133.6.
   f. Muntins:
      1) Material: Extruded aluminum or roll-formed aluminum; with exposed surfaces finished to match sliding door color; concealed fasteners; designed for unrestricted expansion and contraction.
      2) Design: Muntin bar cross-section profile and material chosen from manufacturer's standards.

3) Patterns: Grid patterns to be designated by architect.
4) Location: Exterior
   a) Exterior.
   b) Internal: Encapsulated between the two lites of glass in the insulating glass unit to protect them from damage and dirt buildup.

g. Installation accessories:
1) Material:
   a) Extruded aluminum, nominal 0.062" (1.6) wall, with exposed surfaces finished to match sliding door color and finish performance.
   b) Concealed fasteners.
   c) Required weatherseals.
   d) Designed for unrestricted expansion and contraction.
2) Exterior:
   a) Two-piece mullion cover.
   b) Two-piece head and jamb receptor with thermal break.
   c) Sill anchor plate.
   d) Subsill with thermal break and end dams sealed by the window manufacturer.
   e) Sill cover.
   f) Slip-on expanders.
3) Interior:
   a) Two-piece snap trim and trim clip.
   b) Stool cover.
4) Mullions with thermal break:
   a) Sidelite mullion.
   b) Three-piece mullion.

D. Weather-stripping:
1. Provide weather-stripping locked into extruded grooves in door panels or frames as indicated on manufacturer's drawings and details.

E. Factory-Glazed Fabrication:
1. Comply with requirements in Division 08 Section "Glazing" and with AAMA/WDMA/CSA 101/I.S./A440.
2. Glaze sliding aluminum-framed glass doors in the factory where practical for applications indicated.

2.8 ALUMINUM FINISHES

EDITOR NOTE: Choose the appropriate finish below based on project requirements.

A. Finish designations that are prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

B. Factory Finishing:
   1. Kawneer Permanodic® AA-M10C21A44, AAMA 611, Architectural Class I Color Anodic Coating (Color _____)
   2. Kawneer Permanodic® AA-M10C21A41, AAMA 611, Architectural Class I Clear Anodic Coating (Color #14 Clear) (Optional)
   3. Kawneer Permanodic® AA-M10C21A31, AAMA 611, Architectural Class II Clear Anodic Coating (Color #17 Clear) (Standard)
   4. Kawneer Permafluor™ (70% PVDF), AAMA 2605, Fluoropolymer Coating (Color _____)
   5. Kawneer Permadize® (50% PVDF), AAMA 2604, Fluoropolymer Coating (Color _____)
   6. Kawneer Permacoat™ AAMA 2604, Powder Coating (Color _____)
   7. Other: Manufacturer_____ Type _____ (Color _____)

PART 3 EXECUTION

3.1 EXAMINATION

A. With installer present, examine openings, substrates, structural support, anchorage, and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of work:
   1. Verify rough opening dimensions.
   2. Verify levelness of sill plate.
   3. Verify operational clearances.
   4. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components for proper water management.
   5. Masonry Surfaces:
      a. Masonry surfaces must be visibly dry and free of excess mortar, sand, and other construction debris.
   6. Wood Frame Walls:
      a. Wood frame walls must be dry, clean, sound, well nailed, free of voids, and without offsets at joints.
      b. Ensure that nail heads are driven flush with surfaces in opening and within 3" (76.2 mm) of opening.
   7. Metal Surfaces:
      a. Metal surfaces must be dry and clean (free of grease, oil, dirt, rust, corrosion, and welding slag).
      b. Ensure that metal surfaces are without sharp edges or offsets at joints.

B. Proceed with installation only after correcting unsatisfactory conditions.

3.2 INSTALLATION

A. Comply with drawings, shop drawings, and manufacturer's written instructions for installing sliding aluminum-framed glass doors, hardware, accessories, and other components.

B. Install sliding aluminum-framed glass doors so that the doors:
   1. Are level, plumb, square, and true to line

2. Are without distortion and do not impede thermal movement
3. Are anchored securely in place to structural support
4. Are in proper relation to wall flashing and other adjacent construction

C. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

PART 4 FIELD QUALITY CONTROL

A. Field Tests:
1. Architect shall select aluminum-framed terrace door units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter caulked and cured.
2. Conduct tests for air infiltration and water penetration with manufacturer's representative present.
3. Tests that do not meet the specified performance requirements and units that have deficiencies shall be corrected as part of the contract amount.
4. Testing shall be performed per AAMA 502 by a qualified independent testing agency. Refer to Testing Section for payment of testing and testing requirements.
5. Air Infiltration Tests:
   a. Conduct tests in accordance with ASTM E 783.
   b. AW rating: Test shall be conducted at a minimum uniform static pressure of 6.2 psf (300 Pa). The maximum allowable rates of air infiltration for field testing shall not exceed 1.5 times the project specifications
6. Water Infiltration Tests:
   a. Conduct tests in accordance with ASTM E 1105.
   b. No uncontrolled water infiltration is permitted when tested at a static test pressure equal to two-thirds of the tested laboratory performance test pressure.

B. Manufacturer's Field Services:
1. Upon owner's written request, provide periodic site visit by manufacturer's field service representative.

PART 5 ADJUSTING, CLEANING, AND PROTECTION

A. Adjusting:
1. Adjust operating door panels, screens, hardware, and accessories for tight fit at contact points and weather stripping for smooth operation and weather tight closure.
2. Lubricate hardware and moving parts.

B. Cleaning:
1. Avoid damaging protective coatings and finishes.
2. Clean glass and aluminum surfaces of product immediately after installation.
3. Comply with glass manufacturer's written recommendations for final cleaning and maintenance.
4. Remove non-permanent labels and clean surfaces.
5. Remove excess sealants, glazing materials, dirt, and other substances.

6. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during the construction period.
7. Remove construction debris from project site and legally dispose of debris.

C. Protection:
1. Protect installed product's finish surfaces from damage during construction.

END OF SECTION 083213

NOTES AND DISCLAIMERS

Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor. It is the responsibility of the owner, the specifier, the architect, the general contractor, and the installer and the fabricator/transformer, consistent with their roles, to determine the appropriate materials for a project in strict conformity to all applicable national, regional and local building codes and regulations.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

Information contained herein or related hereto is intended only for evaluation by technically skilled persons, with any use thereof to be at their independent discretion and risk. Such information is believed to be reliable, but Kawneer shall have no responsibility or liability for results obtained or damages resulting from such use.

This guide specification is intended to be used by a qualified construction specifier. The guide specification is not intended to be used verbatim as a project specification without appropriate modifications for the specific use intended. The guide specification must be used and coordinated with the procedures of each design firm and the particular requirements of a specific construction project.

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