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**Features**

- 1630 SS IR is an outside glazed captured curtain wall system
- 1630 SS IR has a 3” (76.2 mm) sight line
- Standard 7-13/16” (198.4 mm) or 8-13/16” (223.8 mm) depth systems
- Infill 1-5/16” (33.3 mm)
- Thermally Broken by means of a continuous 1/4” (6.4 mm) low conductance spacer
- Perimeter seal can be installed at the pressure plate or mullion shoulder
- Frame options available to accommodate design pressures from 70 psf to 130 psf
- 1630 SS IR can be supplied fabricated and KD or in stock lengths
- Dry Glazing and Wet Glazing option
- Interlocking mullion design eliminates need for anti-buckling clips
- Concealed fastener joinery creates smooth, monolithic appearance
- EPDM gaskets and thermal break
- Screw spline joinery method allows shop assembly of ladder sections, reducing field labor
- Corners available with shear block fabrication method
- Offers entrance framing systems
- Silicone compatible glazing materials for long-lasting seals
- Two color option
- Permanodic™ anodized finishes in seven choices
- Painted finishes in standard and custom choices

**Additional Features***

- Large Missile and Small Missile Hurricane Impact tested
- Blast Mitigation tested

**Product Applications**

- Ideal for low-rise applications where high performance is desired
- Most of the product assembly can be done in the shop rather than the field. This allows for better quality control and reduces expensive field labor.

*See NOA product approval for specific features tested and approved for hurricane impact.

For specific product applications, Consult your Kawneer representative.
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Architects - Most extrusion and window types illustrated in this catalog are standard products for Kawneer. These concepts have been expanded and modified to afford you design freedom. Some miscellaneous details are non-standard and are intended to demonstrate how the system can be modified to expand design flexibility. Please contact your Kawneer representative for further assistance.

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Metric (SI) conversion figures are included throughout these details for reference. Numbers in parentheses (    ) are millimeters unless otherwise noted.

The following metric (SI) units are found in these details:
  m – meter
  cm – centimeter
  mm – millimeter
  s – second
  Pa – pascal
  MPa – megapascal

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**1630 SS IR Curtain Wall System**

**TYPICAL FRAMING DETAILS**

**SCALE 3" = 1'-0"**

**TYPICAL ELEVATION**

ELEVATION IS NUMBER KEYED TO DETAILS

**OPTIONAL WET GLAZING**

LARGE MISSILE (LMI)

**HEAD**

**HORIZONTAL**

**SILL**
Scales 3" = 1'-0"

LEFT JAMB
7-13/16" DEEP

VERTICAL
7-13/16" DEEP

RIGHT JAMB
7-13/16" DEEP

LEFT JAMB
8-13/16" DEEP

VERTICAL
8-13/16" DEEP

RIGHT JAMB
8-13/16" DEEP
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1630 SS IR Curtain Wall System
HURRICANE IMPACT RESISTANT ENTRANCE FRAMING DETAILS
EC 97911-099

SCALE 3" = 1'-0"

ENTRANCE ELEVATION
ELEVATION IS NUMBER KEYED TO DETAILS

NOTE: DOORS SHOWN GLAZED WITH 9/16" INFILL

1 TRANSOM BAR
BUTT HUNG OR OFFSET PIVOT
WITH SINGLE ACTING OFFSET ARM
CONCEALED OVERHEAD CLOSER
LARGE MISSILE (LMI)

OPTIONAL
1" DOOR INFILL
LARGE MISSILE (LMI)

2 DOOR JAMB
BUTT HUNG
OR
OFFSET PIVOT
LARGE MISSILE (LMI)

3 DOOR JAMB
CONTINUOUS HINGE
LARGE MISSILE (LMI)
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SCALE 3" = 1'-0"

1
TRANSOM BAR
BUTT HUNG OR OFFSET PIVOT
WITH SINGLE ACTING OFFSET ARM
CONCEALED OVERHEAD CLOSER
LARGE MISSILE (LMI)

OPTIONAL
1" DOOR INFILL
LARGE MISSILE (LMI)

NOTE: DOORS SHOWN GLAZED WITH 9/16" INFILL

ENTRANCE ELEVATION
ELEVATION IS NUMBER KEYED TO DETAILS

2
DOOR JAMB
BUTT HUNG
OR
OFFSET PIVOT
LARGE MISSILE (LMI)

3
DOOR JAMB
CONTINUOUS HINGE
LARGE MISSILE (LMI)
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SCALE 3" = 1'-0"

135° OUTSIDE CORNER
7-13/16" DEEP

135° OUTSIDE CORNER
8-13/16" DEEP

135° INSIDE CORNER
7-13/16" DEEP
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SCALE 3" = 1'-0"

135° INSIDE CORNER
8-13/16" DEEP

135° OUTSIDE CORNER
7-13/16" DEEP

135° OUTSIDE CORNER
8-13/16" DEEP
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Shown with AA™ 900 Thermal Window

NOTE: Other vent types can be accommodated. Contact your Kawneer representative for other options.
Actual project conditions will determine specific anchor design. Details on this page are for reference only.
Actual project conditions will determine specific anchor design. Details on this page are for reference only.
WIND LOAD CHARTS

Mullions are designed for deflection limitations in accordance with AAMA TIR-A11 of L/175 up to 13'-6" and L/240 +1/4" above 13'-6". These curves are for mullions WITH HORIZONTALS and are based on engineering calculations for stress and deflection. Allowable wind load stress for ALUMINUM 15,152 psi (104MPa), STEEL 30,000 psi (207MPa). Charted curves, in all cases are for the limiting value. Wind load charts contained herein are based upon nominal wind load utilized in allowable stress design. A conversion from Load Resistance Factor Design (LRFD) is provided. To convert ultimate wind loads to nominal loads, multiply ultimate wind loads by a factor of 0.6 per ASCE/SEI 7. A 4/3 increase in allowable stress has not been used to develop these curves. For special situations not covered by these curves, contact your Kawneer representative for additional information.

DEADLOAD CHARTS

Horizontal or deadload limitations are based upon 1/8" (3.2), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1" (25.4) thick insulating glass or 1/4" (6.4) thick glass supported on two setting blocks placed at the loading points shown.
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1630 SS IR Curtain Wall System

DEADLOAD CHARTS

(1-5/16" INFILL)

SPAN IN METERS

1.0

2.0

16

15

14

13

12

11

10

9

8

7

6

5

4

3

2

1

0

GLASS HEIGHT IN FEET

1

2

3

4

5

6

7

8

SPAN IN FEET

A = 1/4 POINT LOADING

B = 1/8 POINT LOADING

176007

I = 3.334 (158.77 x 10^3)

S = 2.222 (36.41 x 10^3)
Generic Project Specific U-factor Example Calculation
(Percent of Glass will vary on specific products depending on sitelines)
(Based on single bay of Curtain Wall/Window Wall)

Vision Area

Example Glass U-factor
\[ = 0.48 \text{ Btu}/(\text{ft}^2 \cdot \text{h} \cdot ^\circ\text{F}) \]

Vision Area
\[ = 5(9 + 8 + 4) = 105.0 \text{ ft}^2 \]

Total Area (Vision)
\[ = 5' 2-1/2" (9' 3-3/4" + 8' 2-1/2" + 4' 2-1/2") = 113.2 \text{ ft}^2 \]

Percentage of Vision Glass
\[ = \frac{(\text{Vision Area} + \text{Total Area})}{100} = 93\% \]

Spandrel Area

Example Spandrel R-value
\[ = 15 \text{ (ft}^2 \cdot \text{h} \cdot ^\circ\text{F})/\text{Btu} \]

Spandrel Area
\[ = 5(6 + 3) = 45.0 \text{ ft}^2 \]

Total Area (Spandrel)
\[ = 5' 2-1/2" (6' 2-1/2" + 3' 3-3/4") = 49.6 \text{ ft}^2 \]

Percent of Spandrel
\[ = \frac{(\text{Spandrel Area} + \text{Total Area})}{100} = 91\% \]
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Based on a single curtain wall bay of 93% vision glass and center of glass U-factor of 0.48, System U-factor is equal to 0.53 Btu/(h·ft²·°F)

Based on a single curtain wall bay of 91% spandrel and center of spandrel R-value of 15, system U-factor is equal to 0.21 Btu/(h·ft²·°F)
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Note:
Values in parentheses are metric.
COG=Center of Glass.
Charts are generated per AAMA 507.

System U-Factor for Vision Glass

Note for System U-Factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values (winter conditions) and are obtained from your glass supplier.
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Charts are generated per AAMA 507.

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area

System Visible Transmittance (VT) vs Percent of Vision Area

Charts are generated per AAMA 507.
### Thermal Transmittance

<table>
<thead>
<tr>
<th>Glass U-Factor</th>
<th>Overall U-Factor</th>
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<tbody>
<tr>
<td>0.48</td>
<td>0.57</td>
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<td>0.33</td>
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**NOTE:** For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matrices are based on the standard NFRC specimen size of 2000mm wide by 2000mm high (78-3/4" by 78-3/4").

### SHGC Matrix

<table>
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<th>Glass SHGC</th>
<th>Overall SHGC</th>
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### Visible Transmittance

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<th>Glass VT</th>
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