Laws and building and safety codes governing the design and use of glazed entrance, window, and cutain wall products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

EC 97911-43 FEATURES

Features

- Flush appearance with face sheet of fiberglass reinforced polyester (FRP), acrylic modified polyester (AMP) or aluminum, that is captured on four sides by integral extruded reglets
- Door is 1-3/4" Deep
- Life time warranty door corner construction consist of mitered corners with angle alignment blocks secured with 3/8" full-width galvanized steel tie rods
- · Urethane foam core
- Single acting
- · Offset pivots, butt hinges or continuous geared hinge
- Surface mounted or concealed closers
- MS locks or exit device hardware
- Architects Classic push/pulls
- Vision lite infills of 1/4" or 1"
- Adjustable astragal utilizing pile weathering with polymeric fin at meeting stiles
- Sealair® bulb polymeric weatherstripping in door frames
- FRP standard texture panel finishes in fourteen standard choices
- FRP sandstone texture panel finishes in four standard choices
- AMP panel finishes in six standard choices
- Aluminum panels with three texture choices and Permanodic[®] anodized finishes in six choices
- Painted finishes in standard and custom choices

Optional Features

- Numerous push/pull options
- Paneline® / Paneline® EL exit device

Product Applications

Flushline[®] is designed for high traffic applications such as schools, universities as well
as highly corrosive environments such as coastal applications, manufacturing facilities
and waste water treatment plants

For specific product applications, Consult your Kawneer representative.



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EC 97911-43

Laws and building and safety codes governing the design and use of glazed entrance, window, and cutrain wilal products vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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FINISH CHART	7
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FACE SHEET OPTIONS	9
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LAWS AND BUILDING AND SAFETY CODES GOVERNING THE DESIGN AND USE OF 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.

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

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



	,
FINISH CHART	EC 97911-43

	FINISH OF DOOR SUB-FRAME			
FACE SHEET TYPE AND FINISH	#17 CLEAR ANODIZED	#29 BLACK ANODIZED	#40 BRONZE ANODIZED	PAINTED TO MATCH
FRP - STANDARD				
Beige				•
Blue				•
Black		•		
Boysenberry				•
Dark Bronze			•	
Dark Grey	•			
Hartford Green				•
Light Grey	•			
Military Blue				•
Red				•
Sandstone				•
Seawolf				•
Slate Grey	•			
White				•
FRP - SANDSTONE		1	ſ	
Beige				•
Dark Bronze			•	
Light Grey	•			
White				•
AMP		1	ſ	
Chestnut			•	
Dark Maple			•	
Mahogany			•	
Oak			•	
Teak			•	
Walnut			•	

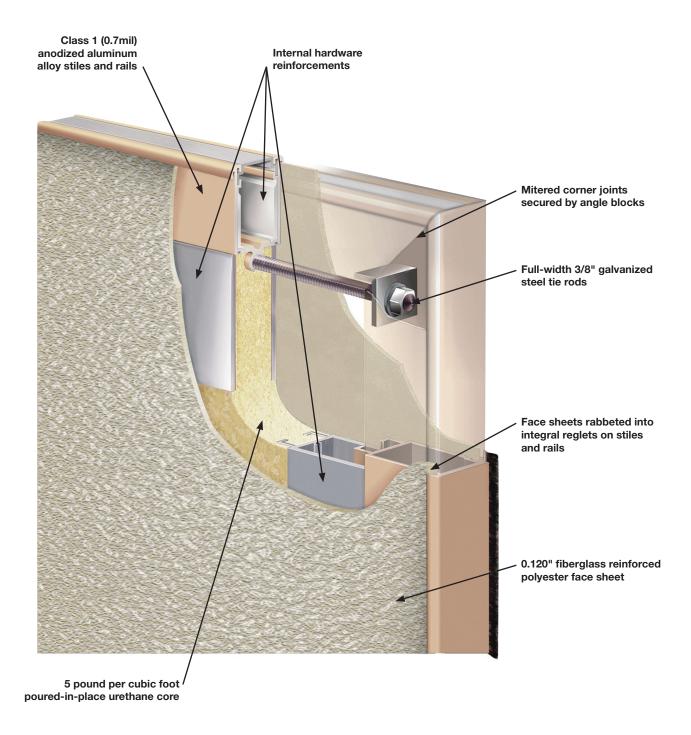
The finish chart depicts standard color combinations of face sheet and door sub-frame. If other than standard combinations are required please consult your Kawneer representative.



PICTORIAL VIEW

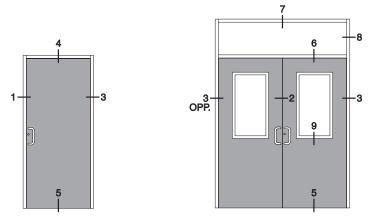
DOOR CONSTRUCTION

The chassis for Kawneer's Flushline Series door utilizes Kawneer's corner construction consisting of mitered corners with angle alignment blocks secured with 3/8" full-width galvanized steel tie rods. Face sheets interlock with the aluminum stiles and rails to create a hollow cavity which is then filled with frothed-in-place urethane foam. The exceptional characteristics of urethane foam assure a strong chemical bond with all internal aluminum surfaces and a tough, dimensionally stable core. Doors are reinforced internally for surface applied and mortised hardware. The standard F.R.P.(Fiberglass Reinforced Polyester) face sheet provides high impact resistance and architectural aesthetic qualities.



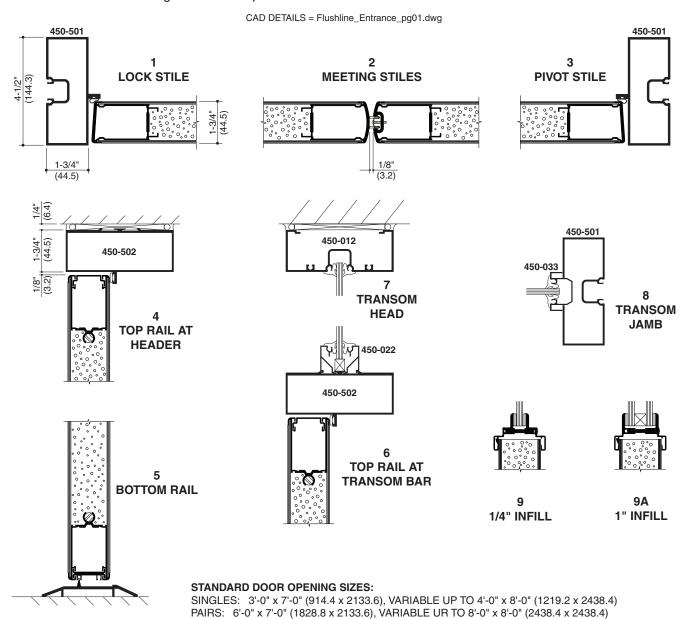


SCALE 3" = 1'-0"



ELEVATIONS ARE NUMBER KEYED TO DETAILS SHOWN

NOTE: Details show Trifab® VG 450 (Center) framing. Flushline® doors may be used with other Kawneer framing. Refer to other framing sections for specific details.

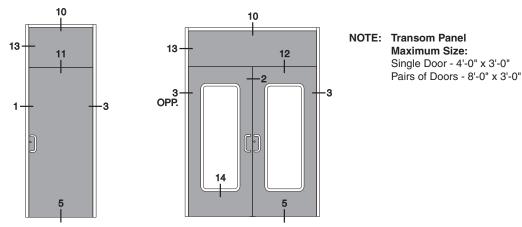


For doors over 8'-0" please consult factory.

KAWNE

CONSTRUCTION DETAILS

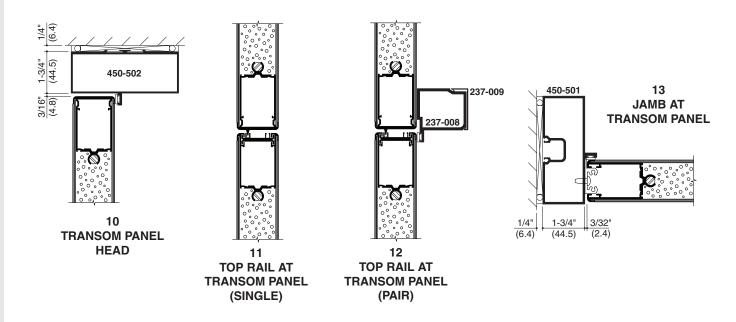
SCALE 3" = 1'-0"

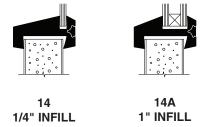


ELEVATIONS ARE NUMBER KEYED TO DETAILS SHOWN

NOTE: Details show Trifab® VG 450 (Center) framing. Flushline® doors may be used with other Kawneer framing. Consult individual framing sections for details.

CAD DETAILS = Flushline_Entrance_pg02.dwg





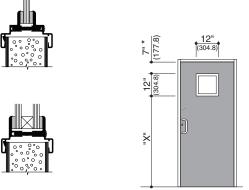


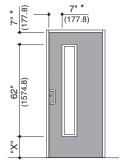
STANDARD CONFIGURATIONS SHOWN

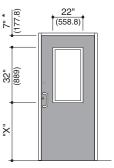
Consult your Kawneer representative for vision lites other than configurations shown. For circular or radius corner vision lites, use the gasket framed vision lite option.

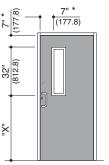
ALUMINUM FRAMED VISION LITES

1/4" GLASS or 1" INSULATING GLASS









Type Designation	AVL-1	AVL-2	AVL-3	AVL-4
Vision Lite Size Width Height	12" (304.8) 12" (304.8)	6" (152.4) 62" (1574.8)	22" (558.8) 32" (812.8)	6" (152.4) 32" (812.8)
Placement in Door	Centered	Lock Side	Centered	Lock Side
Minimum Edge Dimension	Variable	7" (177.8)	Variable	7" (177.8)

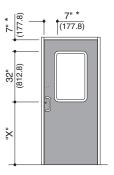
^{*} Edge dimensions shown are minimum allowed due to manufacturing constraints. Please specify dimension "X" (Bottom of Door to Bottom of Vision Lite).

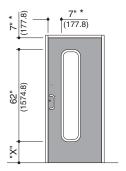
GASKET FRAMED VISION LITES

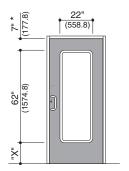
1/4" GLASS or 1" INSULATING GLASS











Type Designation	ı	GVL-1	GVL-2	GVL-3
Vision Lite Size	Width Height	22" (558.8) 32" (812.8)	10" (254) 62" (1574.8)	22" (558.8) 62" (1574.8)
Placement in Doo	or	Centered	Lock Side	Centered
Minimum Edge Di	imension	Variable	7" (177.8)	Variable

^{*} Edge dimensions shown are minimum allowed due to manufacturing constraints. Please specify dimension "X" (Bottom of Door to Bottom of Vision Lite).



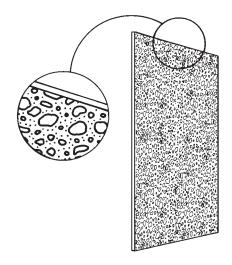
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EC 97911-43 **FACE SHEET OPTIONS**

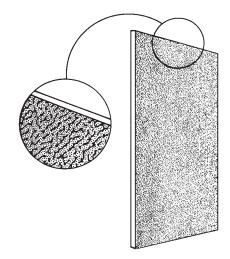
STANDARD DOOR FACE SHEETS

FOR EXTERIOR AND INTERIOR SURFACES



F.R.P. (Fiberglass Reinforced Polyester) .120 (3.0) Thick **Standard Texture** Available Finishes:

Beige, Blue, Black, Boysenberry, Dark Bronze, Dark Grey, Hartford Green, Light Grey, Military Blue, Red, Sandstone, Seawolf, Slate Grey and White



F.R.P. (Fiberglass Reinforced Polyester) .120 (3.0) Thick **Sandstone Texture Available Finishes:** Beige, Dark Bronze, Light Grey and White

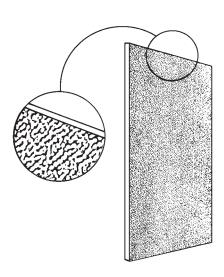


A.M.P. (Acrylic Modified Polyester) .120 (3.0) Thick

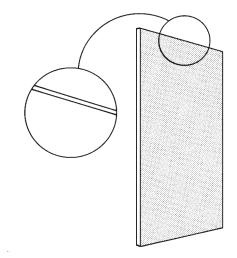
Available Finishes: Chestnut, Dark Maple, Mahogany, Oak, Teak and Walnut

OPTIONAL DOOR FACE SHEETS

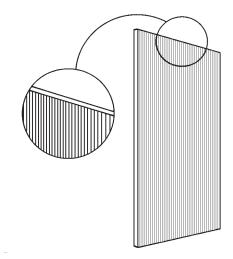
FOR EXTERIOR AND INTERIOR SURFACES



Embossed Aluminum Sheet .062 (1.6) Thick



Plain (Unpatterened) Aluminum Sheet .062 (1.6) Thick



Embossed (Vertical Ribbed) Aluminum Sheet .062 (1.6) Thick



HARDWARE EC 97911-43

NOTE: SEE HARDWARE SECTION FOR COMPLETE DESCRIPTION OF THE HARDWARE LISTED BELOW.

HINGES & PIVOTS

BUTT HINGES Kawneer Standard 4-1/2" x 4" (114.3 x 101.6) NRP butt hinges, 1-1/2 pair per leaf.

OFFSET PIVOTS Kawneer Standard Top, Bottom Pivots with Intermediate Pivot.

DOOR CLOSERS

SURFACE MOUNTED Norton 1601 adjustable or 1601 BF adjustable, LCN 1260 adjustable or LCN 4040 Super Smoothee.

LOCKS AND LATCHES

DEADLOCKS...... Adams Rite MS-1850A

CYLINDRICAL LOCKSET Yale 5407 Series

MORTISE LOCKSET Yale CRR-8860-2FL with Lever Handle

MORTISE LOCKSET Yale LF 8860-2 with Knob Lock Trim

NOTE: Yale locksets are for use on single doors only.

For Mortise Lockset Only

PUSH-PULLS

Architects Classic:

CO-9 Pull and CP-II Push Bar

CO-9 Pull and CP Push Bar

CO-12 Pull and CP-II Push Bar

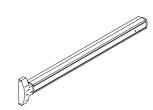
CO-12 Pull and CP Push Bar

CO-9 and CO-9 Pull

CO-12 and CO-12 Pull

EXIT DEVICES AND PULLS

KAWNEER STANDARD





CONCEALED ROD Dor-O-Matic/Falcon 1690 Dor-O-Matic/Falcon EL 1690

RIM LATCH Dor-O-Matic/Falcon 1790 Dor-O-Matic/Falcon EL 1790





STYLE "CO-9"

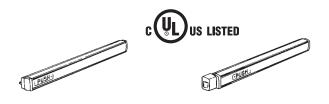
STYLE "CO-12"

NOTE: "CPN" PULL NOT AVAILABLE ON FLUSHLINE®



EC 97911-43 **HARDWARE**

OPTIONAL EXIT DEVICES



CONCEALED ROD Dor-O-Matic/Falcon 1490

RIM LATCH Dor-O-Matic/Falcon 1590



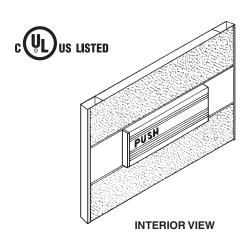
CONCEALED ROD Dor-O-Matic/Falcon 1990

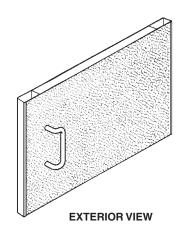


RIM LATCH Dor-O-Matic/Falcon 2090

PANELINE® CONCEALED ROD EXIT DEVICE

See Hardware section for complete description of Paneline hardware, including finish of units Paneline uses mortise cylinder in lieu of the normal rim-type.



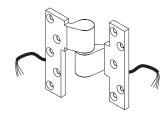


PANELINE® EL EXIT DEVICE COMPONENTS

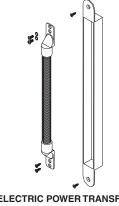
The Optional Paneline EL device is designed for electrified access control and is compatible with most key pad and card reader systems.



POWER TRANSFER INTERMEDIATE BUTT HINGE



POWER TRANSFER INTERMEDIATE OFFSET PIVOT



ELECTRIC POWER TRANSFER (EPT)



SP 1000 POWER SUPPLY



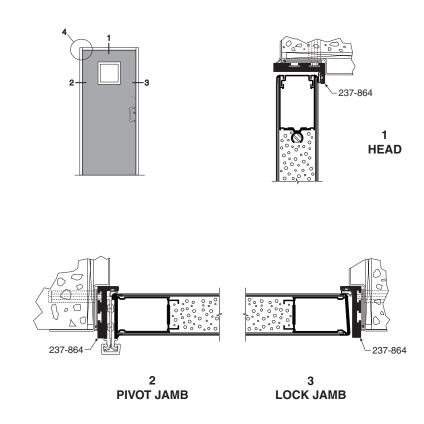
Laws and building and safety codes governing the design and use of glazed entrance, window, and curtain wall products vary widely, Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes on responsibility therefor.

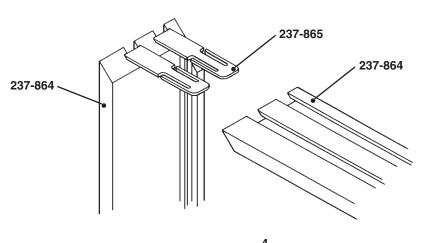
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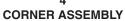
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The Flushline® Frame Adapter is an economical answer for remodel/retrofit projects where new entrance doors are being installed into existing frame. The Flushline® Frame Adapter utilizes Kawneer's SEALAIR® bulb weathering for a resistive weatherseal on three sides of the door. When the frame adapter is used in conjuction with a continuous hinge the need for existing frame tear-out and attempting to align hardware on a new door with an existing frame is eliminated.

CAD DETAILS = Flushline_Entrance_pg03.dwg









Thermal Transmittance¹ (BTU/hr • ft ² • °F)

, , ,		
Glass U-Factor ³	Overall U-Factor 4	
0.48	0.73	
0.46	0.73	
0.44	0.73	
0.42	0.72	
0.40	0.72	
0.38	0.72	
0.36	0.71	
0.34	0.71	
0.32	0.70	
0.30	0.70	
0.28	0.70	
0.26	0.69	
0.24	0.69	
0.22	0.69	
0.20	0.68	
0.18	0.68	
0.16	0.67	
0.14	0.67	
0.12	0.67	
0.10	0.66	

Single Door with Aluminum Panel and Vision Lite

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 (winter conditions) and are obtained from your glass supplier.
- 4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 960mm wide by 2090mm high (37-3/4" by 82-3/8").

SHGC Matrix²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.19
0.70	0.18
0.65	0.17
0.60	0.16
0.55	0.15
0.50	0.14
0.45	0.13
0.40	0.12
0.35	0.12
0.30	0.11
0.25	0.10
0.20	0.09
0.15	0.08
0.10	0.07
0.05	0.04
	1

Visible Transmittance²

Glass VT ³	Overall VT 4
0.75	0.15
0.70	0.14
0.65	0.13
0.60	0.12
0.55	0.11
0.50	0.10
0.45	0.09
0.40	0.08
0.35	0.07
0.30	0.06
0.25	0.05
0.20	0.04
0.15	0.03
0.10	0.02
0.05	0.01



FLUSHLINE® ENTRANCES

Thermal Transmittance¹ (BTU/hr • ft ² • °F)

Glass U-Factor ³	Overall U-Factor 4
0.48	0.67
0.46	0.67
0.44	0.67
0.42	0.66
0.40	0.66
0.38	0.66
0.36	0.65
0.34	0.65
0.32	0.65
0.30	0.64
0.28	0.64
0.26	0.64
0.24	0.63
0.22	0.63
0.20	0.63
0.18	0.62
0.16	0.62
0.14	0.61
0.12	0.61
0.10	0.61

Pair of Doors with Aluminum **Panel and Vision Lite**

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 (winter conditions) and are obtained from your glass supplier.
- 4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1920mm wide by 2090mm high (75-1/2" by 82-3/8").

SHGC Matrix²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.19
0.70	0.18
0.65	0.17
0.60	0.16
0.55	0.15
0.50	0.14
0.45	0.13
0.40	0.12
0.35	0.11
0.30	0.10
0.25	0.09
0.20	0.08
0.15	0.07
0.10	0.06
0.05	0.05

Visible Transmittance²

Glass VT ³	Overall VT ⁴
0.75	0.15
0.70	0.14
0.65	0.13
0.60	0.12
0.55	0.11
0.50	0.10
0.45	0.09
0.40	0.08
0.35	0.07
0.30	0.06
0.25	0.05
0.20	0.04
0.15	0.03
0.10	0.02
0.05	0.01



THERMAL PERFORMANCE MATRIX (NFRC SIZE)

EC 97911-43

Thermal Transmittance¹ (BTU/hr • ft ² • °F)

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.57
0.46	0.57
0.44	0.57
0.42	0.56
0.40	0.56
0.38	0.55
0.36	0.55
0.34	0.55
0.32	0.54
0.30	0.54
0.28	0.54
0.26	0.53
0.24	0.53
0.22	0.53
0.20	0.52
0.18	0.52
0.16	0.51
0.14	0.51
0.12	0.51
0.10	0.50

Single Door with FRP Panel and Vision Lite

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 (winter conditions) and are obtained from your glass supplier.
- 4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 960mm wide by 2090mm high (37-3/4" by 82-3/8").

SHGC Matrix²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.18
0.70	0.17
0.65	0.16
0.60	0.15
0.55	0.14
0.50	0.13
0.45	0.12
0.40	0.11
0.35	0.10
0.30	0.09
0.25	0.08
0.20	0.07
0.15	0.06
0.10	0.05
0.05	0.04
	1

Visible Transmittance²

Glass VT ³	Overall VT 4
0.75	0.15
0.70	0.14
0.65	0.13
0.60	0.12
0.55	0.11
0.50	0.10
0.45	0.09
0.40	0.08
0.35	0.07
0.30	0.06
0.25	0.05
0.20	0.04
0.15	0.03
0.10	0.02
0.05	0.01



THERMAL PERFORMANCE MATRIX (NFRC SIZE)

Thermal Transmittance¹ (BTU/hr • ft ² • °F)

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.51
0.46	0.51
0.44	0.51
0.42	0.50
0.40	0.50
0.38	0.50
0.36	0.49
0.34	0.49
0.32	0.49
0.30	0.48
0.28	0.48
0.26	0.48
0.24	0.47
0.22	0.47
0.20	0.47
0.18	0.46
0.16	0.46
0.14	0.45
0.12	0.45
0.10	0.45

Pair of Doors with FRP Panel and Vision Lite

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 (winter conditions) and are obtained from your glass supplier.
- 4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1920mm wide by 2090mm high (75-1/2" by 82-3/8").

SHGC Matrix²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.18
0.70	0.17
0.65	0.16
0.60	0.15
0.55	0.14
0.50	0.13
0.45	0.12
0.40	0.11
0.35	0.10
0.30	0.09
0.25	0.08
0.20	0.07
0.15	0.06
0.10	0.05
0.05	0.04

Visible Transmittance²

Glass VT ³	Overall VT 4
0.75	0.15
0.70	0.14
0.65	0.13
0.60	0.12
0.55	0.11
0.50	0.10
0.45	0.09
0.40	0.08
0.35	0.07
0.30	0.06
0.25	0.05
0.20	0.04
0.15	0.03
0.10	0.02
0.05	0.01

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