

CODE = U-0.30 (FIXED)

BASE = U-0.29 | OPTIMIZED = U-0.24

PSI VALUE = SEE BELOW

TYPICAL WALL ASSEMBLY.
RE: SK-01

HOLD TERMAZEE ABOVE FLASHING
FOR ROUGH OPENING.

SILICONE FLASHING.
TERMINATE ON WALL AND IN
CURTAIN WALL GLAZING POCKET
(ELBEX, HS222)

EXTENDED CURTAINWALL COVER.
(EFCO, 5600X)

BACKER ROD & SEALANT.
(COSMETIC SEAL)

HEAD

HEAD PSI VALUES:
BASE = 0.167
OPTIMIZED = 0.133

WEEP, MINIMUM TWO PER
PRESSURE PLATE, TYP.

NOTE(S):

1. DETAILS BASED ON EFCO 5600X SERIES 2 1/2"x7 1/2" CURTAINWALL w/ DURACAST PRESSURE PLATE.
2. INTERIOR FINISH NOT SHOWN FOR CLARITY.

HORIZONTAL MULLION

BACKER ROD & SEALANT.
(COSMETIC SEAL)

0.040" ALUMINUM SILL TRIM
(3A COMPOSITES, ALUCOBOND AXCENT)

SILICONE FLASHING.
TERMINATE ON WALL AND IN
CURTAIN WALL GLAZING POCKET
(ELBEX HS222)

HOLD THERMAZEE BELOW FLASHING
FOR ROUGH OPENING.

TYPICAL WALL ASSEMBLY.
RE: SK-01

SILL

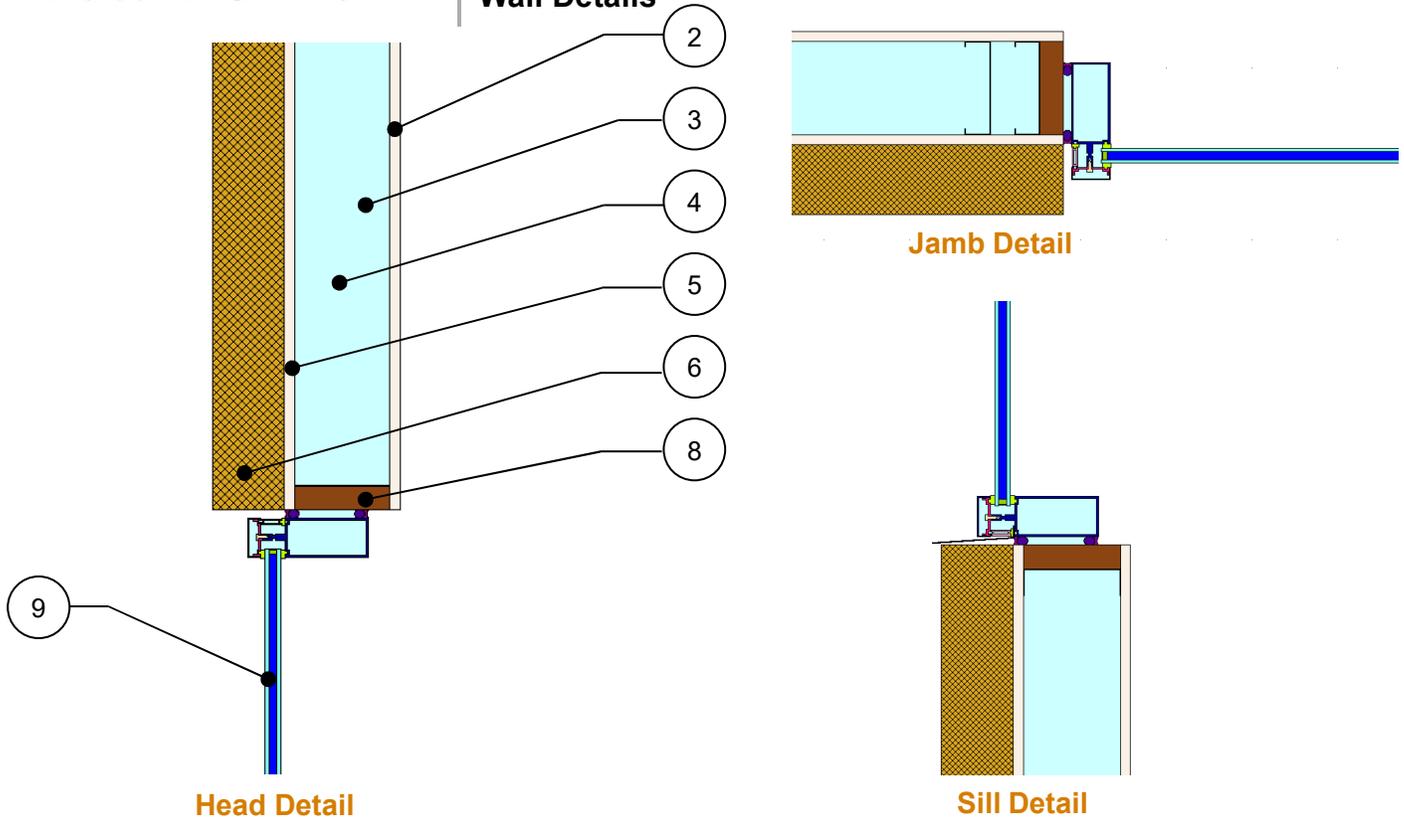
SILL PSI VALUES:
BASE = 0.399
OPTIMIZED = 0.139

FIBER CEMENT - CURTAIN WALL DETAILS

SCALE: 1 1/2" = 1'-0"

Detail SK-07A

Horizontal ThermaZee System Exterior Insulation – Curtain Wall Details



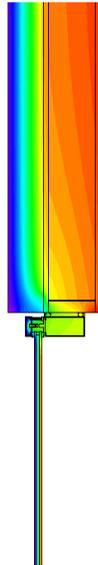
ID	Component	Thickness Inches (mm)	Conductivity Btu·in / ft ² ·hr·oF (W/m K)	Nominal Resistance hr·ft ² ·oF/Btu (m ² K/W)
1	Interior Film (right side) ¹	-	-	R-0.68 (0.12 RSI)
2	Gypsum Board	0.625" (16)	1.11 (0.16)	R-0.57 (0.1 RSI)
3	Air in Stud Cavity	6" (153)	4.16 (0.6)	R-1.48 (0.26 RSI)
4	6" Steel Studs	18 Gauge	429.9 (62)	-
5	Gypsum Sheathing	0.625" (16)	1.11 (0.16)	R-0.57 (0.1 RSI)
6	Mineral Wool Insulation	4.5" (115)	0.24 (0.034)	R-19.19 (3.38 RSI)
7	Knight Wall ThermaZee cladding attachment system (24" o.c.)	18 Gauge	429.9 (62)	-
8	Wood Blocking	9.625" (245)	0.97 (0.14)	-
9	EFCO Series 5600X Aluminum Curtain Wall System: double glazed IGU U _{COG} = 0.20 BTU/hr·ft ² ·°F (1.13 W/m ² K)			
10	Exterior Films (left side) ¹	-	-	R-0.17 (0.03 RSI) to R-0.68 (0.12 RSI)

¹ Value selected from table 1, p. 26.1 of 2009 ASHRAE Handbook – Fundamentals depending on surface orientation

² The thermal conductivity of air spaces within framing was found using ISO 100077-2

Detail SK-07A

Horizontal ThermaZee System Exterior Insulation – Curtain Wall Head



Curtain Wall Head



Thermal Performance Indicators

Assembly 1D (Nominal) R-Value	R_{1D}	R-22.6 (3.98 RSI)
Transmittance / Resistance without Anomaly	U_o R_o	“Clear Wall” U- and R-value of curtain wall assembly
Linear Transmittance	ψ	Incremental increase in transmittance per linear length

*Assumptions and limitations for surface temperatures identified in ASHRAE 1365-RP.

Nominal (1D) vs. Assembly Performance Indicators

Base Assembly – Clear Wall

R_{1D} ft ² ·hr·°F / Btu (m ² K / W)	R_o ft ² ·hr·°F / Btu (m ² K / W)	U_o Btu/ft ² ·hr·°F (W/m ² K)	ψ Btu/ft·hr·°F (W/m K)
R-22.6 (3.98)	R-18.7 (3.29)	0.053 (0.3)	0.167 (0.29)

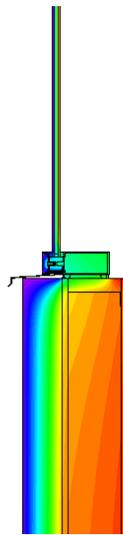
Base Assembly - Glazing

U_{COG} Btu/ft ² ·hr·°F (W/m ² K)
0.20 (1.13)

Detail SK-07A

Horizontal ThermaZee System Exterior Insulation – Curtain Wall Sill

Thermal Performance Indicators



Curtain Wall Sill



Assembly 1D (Nominal) R-Value	R_{1D}	R-22.6 (3.98 RSI)
Transmittance / Resistance without Anomaly	U_o R_o	“Clear Wall” U- and R-value of curtain wall assembly
Linear Transmittance	ψ	Incremental increase in transmittance per linear length

*Assumptions and limitations for surface temperatures identified in ASHRAE 1365-RP.

Nominal (1D) vs. Assembly Performance Indicators

Base Assembly – Clear Wall

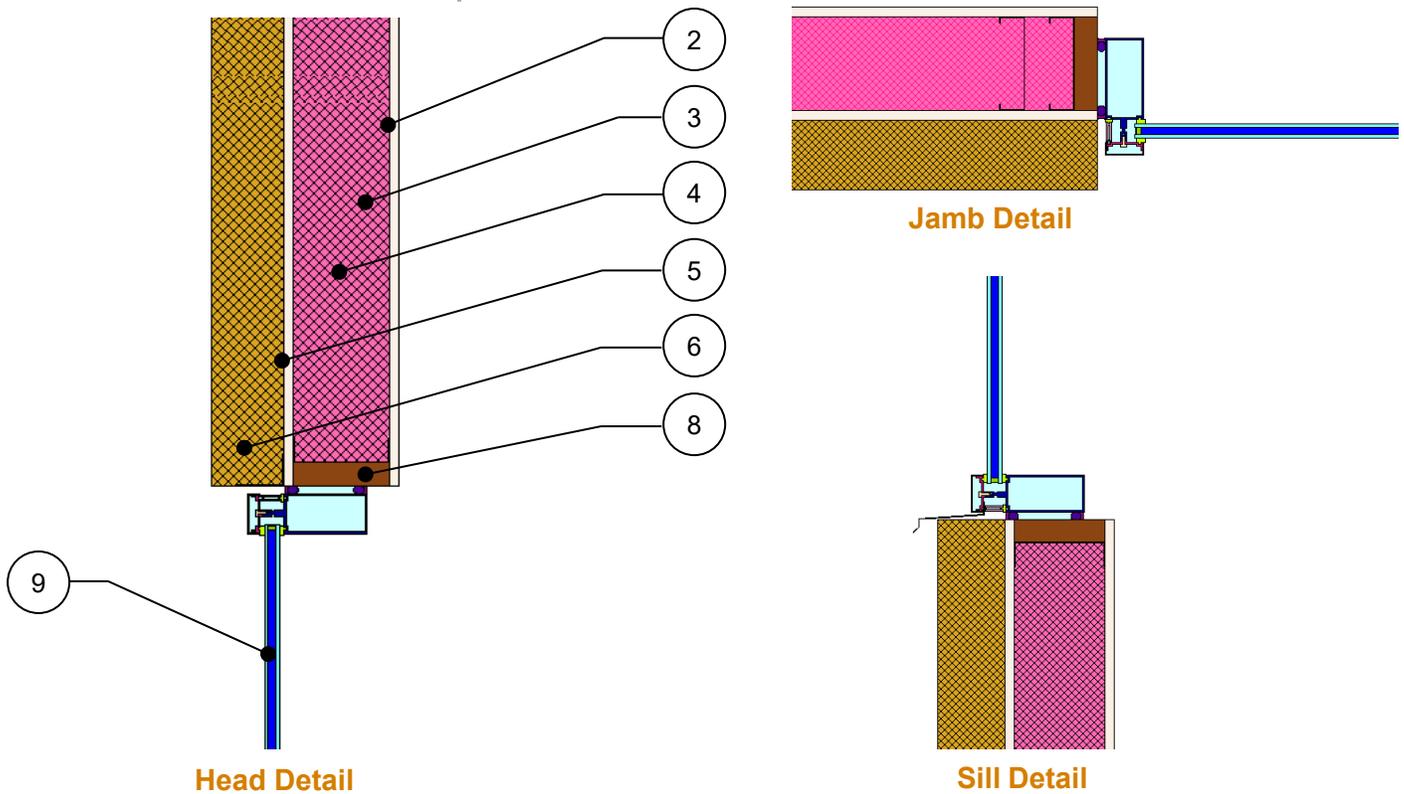
R_{1D} ft ² ·hr·°F / Btu (m ² K / W)	R_o ft ² ·hr·°F / Btu (m ² K / W)	U_o Btu/ft ² ·hr·°F (W/m ² K)	ψ Btu/ft·hr·°F (W/m K)
R-22.6 (3.98)	R-18.7 (3.29)	0.053 (0.3)	0.399 (0.69)

Base Assembly - Glazing

U_{COG} Btu/ft ² ·hr·°F (W/m ² K)
0.20 (1.13)

Detail SK-07A

Horizontal ThermaZee System Exterior & Interior Insulation – Curtain Wall Details



ID	Component	Thickness Inches (mm)	Conductivity Btu·in / ft ² ·hr·oF (W/m K)	Nominal Resistance hr·ft ² ·oF/Btu (m ² K/W)
1	Interior Film (right side) ¹	-	-	R-0.68 (0.12 RSI)
2	Gypsum Board	0.625" (16)	1.11 (0.16)	R-0.57 (0.1 RSI)
3	Fiberglass Batt Insulation	6" (153)	-	R-19.0 (3.35 RSI)
4	6" Steel Studs	18 Gauge	429.9 (62)	-
5	Gypsum Sheathing	0.625" (16)	1.11 (0.16)	R-0.57 (0.1 RSI)
6	Mineral Wool Insulation	4.5" (115)	0.24 (0.034)	R-19.19 (3.38 RSI)
7	Knight Wall ThermaZee cladding attachment system (24" O.C.)	18 Gauge	429.9 (62)	-
8	Wood Blocking	9.625" (245)	0.97 (0.14)	-
9	EFCO Series 5600X Aluminum Curtain Wall System: double glazed IGU U _{COG} = 0.20 BTU/hr·ft ² ·°F (1.13 W/m ² K)			
10	Exterior Films (left side) ¹	-	-	R-0.17 (0.03 RSI) to R-0.68 (0.12 RSI)

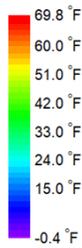
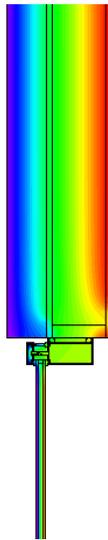
¹ Value selected from table 1, p. 26.1 of 2009 ASHRAE Handbook – Fundamentals depending on surface orientation

² The thermal conductivity of air spaces within framing was found using ISO 100077-2

Detail SK-07A

Horizontal ThermaZee System Exterior Insulation & Interior – Curtain Wall Head

Thermal Performance Indicators



Assembly 1D (Nominal) R-Value	R_{1D}	R-40.7 (7.17 RSI)
Transmittance / Resistance without Anomaly	U_o R_o	“Clear Wall” U- and R-value of curtain wall assembly
Linear Transmittance	ψ	Incremental increase in transmittance per linear length

¹Assumptions and limitations for surface temperatures identified in ASHRAE 1365-RP.

Curtain Wall Head

Nominal (1D) vs. Assembly Performance Indicators

Base Assembly – Clear Wall

R_{1D} ft ² ·hr·°F / Btu (m ² K / W)	R_o ft ² ·hr·°F / Btu (m ² K / W)	U_o Btu/ft ² ·hr·°F (W/m ² K)	ψ Btu/ft·hr·°F (W/m K)
R-40.7 (7.17)	R-27.78 (4.89)	0.036 (0.2)	0.133 (0.23)

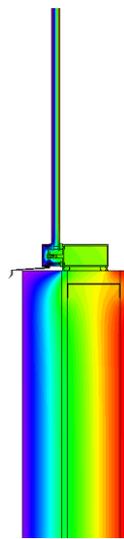
Base Assembly - Glazing

U_{COG} Btu/ft ² ·hr·°F (W/m ² K)
0.20 (1.13)

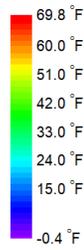
Detail SK-07A

Horizontal ThermaZee System Exterior Insulation & Interior – Curtain Wall Sill

Thermal Performance Indicators



Curtain Wall Sill



Assembly 1D (Nominal) R-Value	R_{1D}	R-40.7 (7.17 RSI)
Transmittance / Resistance without Anomaly	U_o R_o	“Clear Wall” U- and R-value of wall assembly
Linear Transmittance	ψ	Incremental increase in transmittance per linear length

¹Assumptions and limitations for surface temperatures identified in ASHRAE 1365-RP.

Nominal (1D) vs. Assembly Performance Indicators

Base Assembly – Clear Wall

R_{1D} ft ² ·hr·°F / Btu (m ² K / W)	R_o ft ² ·hr·°F / Btu (m ² K / W)	U_o Btu/ft ² ·hr·°F (W/m ² K)	ψ Btu/ft·hr·°F (W/m K)
R-40.7 (7.17)	R-27.78 (4.89)	0.036 (0.2)	0.139 (0.24)

Base Assembly - Glazing

U_{COG} Btu/ft ² ·hr·°F (W/m ² K)
0.20 (1.13)