

NET ZERO STEEL STUD - DETAIL SET

U-values of building assemblies Passive House with PHPP Version 10.6 EN

/ Climate: PHPP-Standard / TFA: 0 m² / Overheating: % / PER: 0 kWh/(m²a) Show special cases and secondary calculations on the right ->

Description of building assembly							Assembly no.				
Net Zero Steel Stud Exterior Insulation - Wall							01ud				
Orientation of building assembly (or R _{si})		2-Wall		Interior insulation?							
Adjacent to (or R _{se})		3-Ventilated		U-value supplement [W/(m²K)]							
Area section 1	λ [W/(mK)]	Area section 2 (optional)	λ [W/(mK)]	Area section 3 (optional)	λ [W/(mK)]	Thickness [mm]					
1/2" Drywall	0.180					13					
3-1/2" Structure - service cavity	0.483	2x4 steel stud @ 16" o.c.	50.000			89					
1/2" Plywood sheathing	0.130					13					
2" GPS exterior insulation	0.030					51					
2" GPS exterior insulation	0.030					51					
Percentage of sec. 1:							100%	Percentage of sec. 2:	0.0%	Percentage of sec. 3:	
Heat transmission resistance coefficients							Total thickness [cm]:		21.7		
Interior R _{si} :							0.13	m²K/W			
Exterior R _{se} :							0.13	m²K/W		U-value [W/(m²K)]: 0.249	

Description of building assembly							Assembly no.				
Net Zero Steel Stud Exterior Insulation - Foundation							02ud				
Orientation of building assembly (or R _{si})		2-Wall		Interior insulation?							
Adjacent to (or R _{se})		2-Ground		U-value supplement [W/(m²K)]							
Area section 1	λ [W/(mK)]	Area section 2 (optional)	λ [W/(mK)]	Area section 3 (optional)	λ [W/(mK)]	Thickness [mm]					
1/2" Drywall	0.180					13					
2-3/4" Quadlock ICF - EPS	0.036					70					
8" Concrete foundation	2.300					203					
2-3/4" Quadlock ICF - EPS	0.036					70					
Percentage of sec. 1:							100%	Percentage of sec. 2:		Percentage of sec. 3:	
Heat transmission resistance coefficients							Total thickness [cm]:		35.6		
Interior R _{si} :							0.13	m²K/W			
Exterior R _{se} :							0.00	m²K/W		U-value [W/(m²K)]: 0.239	

Description of building assembly							Assembly no.				
Net Zero Steel Stud Exterior Insulation - Header							03ud				
Orientation of building assembly (or R _{si})		2-Wall		Interior insulation?							
Adjacent to (or R _{se})		3-Ventilated		U-value supplement [W/(m²K)]							
Area section 1	λ [W/(mK)]	Area section 2 (optional)	λ [W/(mK)]	Area section 3 (optional)	λ [W/(mK)]	Thickness [mm]					
1/2" Drywall	0.180					13					
3-1/2" Structure -service cavity	0.483	2x4 steel stud @ 16" o.c.	50.000			89					
1/2" Plywood sheathing	0.130					13					
2" GPS exterior insulation	0.030					51					
2" GPS exterior insulation	0.030					51					
Percentage of sec. 1:							91%	Percentage of sec. 2:	9.4%	Percentage of sec. 3:	
Heat transmission resistance coefficients							Total thickness [cm]:		21.7		
Interior R _{si} :							0.13	m²K/W			
Exterior R _{se} :							0.13	m²K/W		U-value [W/(m²K)]: 0.255	

Description of building assembly							Assembly no.				
Net Zero Steel Stud Exterior Insulation - Slab							04ud				
Orientation of building assembly (or R _{si})		3-Floor		Interior insulation?							
Adjacent to (or R _{se})		2-Ground		U-value supplement [W/(m²K)]							
Area section 1	λ [W/(mK)]	Area section 2 (optional)	λ [W/(mK)]	Area section 3 (optional)	λ [W/(mK)]	Thickness [mm]					
4" Concrete	2.300					102					
2" EPS type ii	0.036					51					
2" EPS type ii	0.036					51					
Percentage of sec. 1:							100%	Percentage of sec. 2:		Percentage of sec. 3:	
Heat transmission resistance coefficients							Total thickness [cm]:		20.4		
Interior R _{si} :							0.17	m²K/W			
Exterior R _{se} :							0.00	m²K/W		U-value [W/(m²K)]: 0.328	

ASSEMBLY VALUES

	U - Value	R - Value	RSI
Wall Assembly	0.249	22.80	4.016
Foundation	0.239	23.76	4.184
Window Header	0.249	22.80	4.016
Slab	0.328	17.31	3.049

NOTES:

Project No. 2024.36



Revisions

Notes
1. .
2. .
3. .

Project North



Scale
Net-Zero Steel Stud