PRODUCT APPLICATION

The PrimeWall® EQ Studs are used in non-load-bearing wall systems that support gypsum board construction. PrimeWall EQ Studs are equivalent to 20 gauge non-structural drywall studs, allowing you to use less material. Each PrimeWall EQ Stud is manufactured from mill-certified steel meeting material composition requirements listed below.

PrimeWall EQ Studs contain knurled flanges for fast fastener placement when attaching wallboard. Pre-punched knockouts are spaced at regular intervals for rapid installation of bridging, electrical wiring, and plumbing.

PRIMEWALL® EQ STUDS CONSTRUCTION ADVANTAGES

- Knurled flanges with no grooves or ribs to interfere with screw placement
- Wide flanges for increased target area for screws to hit
- Material is optimized with decreased mil thickness, while maintaining higher strength and stiffness
- Strengthened with increased yield strength and deeper lip

Physical Properties of Non-Standard Non-Structural CFS Framing Members

Section	Similar To SSMA	Mil Thickness	Design Thickness	Gross Properties						Effective Properties		Moments			
				Area	Weight	I_x	R_x	I_y	R_y	I_{xd}	S_x	Allowable M_a	Nominal M_n	Dist. Buck. M_{nd}	Unbraced Length L_u
		(mils)	(in.)	($in.^2$)	(lbs/ft)	($in.^4$)	(in.)	($in.^4$)	(in.)	($in.^4$)	($in.^3$)	(in-k)	(in-k)	(in-k)	(in.)
362PWS134-19NS, 55ksi	362S125-30	19	0.0200	0.138	0.471	0.283	1.430	0.035	0.504	0.254	0.094	3.09	5.17	5.34	26.6
600PWS134-21NS, 55ksi[1]	600S125-30	21	0.0221	0.205	0.699	1.027	2.237	0.045	0.466	0.851	0.169	5.57	9.29	10.59	25.7

Table Notes

1. Section properties and nominal moments are based on AISI S100-07.
2. Superscript "1" denotes that the web height-to-thickness ratio exceeds 260.
3. Strength increase due to cold-work of forming is not considered in the analysis.

Table Notes cont'd

4. Standard punchouts are considered in the calculation of nominal moments.
5. Rotational stiffness (k_ϕ) is taken equals to zero for calculation of the distortional buckling moment.
6. PWS stud is considered fully braced when the unbraced length is less than the listed L_u.

Composite Limiting Heights with 5/8" Type X Gypsum Board

Member (name)	Similar to SSMA	Spacing	5 psf			7.5 psf			10 psf		
		(in. o.c.)	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
362PWS134-19NS, 55ksi	362S125-30	12	22' 7"	18' 7"	16' 4"	19' 8"	16' 3"	14' 3"	17' 11"	14' 9"	12' 11"
		16	20' 6"	16' 11"	14' 10"	17' 11"	14' 9"	12' 11"	16' 2" f	13' 5"	11' 9"
		24	17' 11"	14' 9"	12' 11"	15' 3" f	12' 11"	11' 2"	13' 3" f	11' 9"	9' 11"
600PWS134-21NS, 55ksi	600S125-30	12	30' 3"	26' 9"	23' 5"	26' 10"	23' 4"	20' 5"	24' 2" f	21' 2"	18' 7"
		16	27' 9"	24' 3"	21' 3"	24' 2" f	21' 2"	18' 7"	20' 11" f	19' 3"	16' 10"
		24	24' 2" f	21' 2"	18' 7"	19' 9" f	18' 6"	16' 3"	17' 1" f	16' 10"	14' 7"

Table Notes

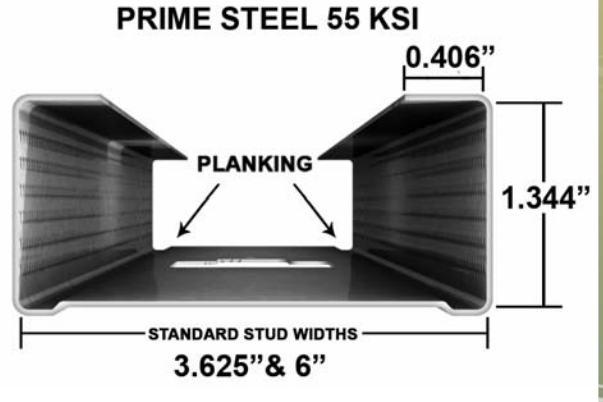
1. Composite limiting heights are based on testing according to ICC-ES AC86-2010.
2. Composite limiting heights are based on gypsum board applied full height to each stud flange and installed using minimum No. 6 Type S Drywall screws.
3. No fasteners are required for attaching the stud to the track, except as required by ASTM C754.
4. 'f' adjacent to the height value indicates that flexural stress controls the allowable wall height.

Allowable Loads for Screw Connections (pounds per screw)

Member Style (Thickness designator)	Design Thickness	Min. Thickness	Yield	Tensile	#6 Screw (0.138" dia.; 1/4" head)			#8 Screw (0.164" dia.; 5/16" head)			#10 Screw (0.190" dia.; 0.340" head)			C645 Screw Test
			Fy	Fu	Shear	Pullout	Pullover	Shear	Pullout	Pullover	Shear	Pullout	Pullover	(P, F)
	(in.)	(in.)	(ksi)	(ksi)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	
19	0.0200	0.0190	55	70	97	55	175	112	65	219	121	75	238	Pass
21	0.0221	0.0210	55	70	107	60	193	127	72	242	140	83	263	Pass

Table Notes

1. Data is based on calculated values in accordance with AISI S100-07 Section E4 for equal thicknesses joined together.
2. Pullover capacities are based on concentrically loaded connections that produce a uniform pull-over force on the fastener.
3. The edge distance, e, is taken as 1.5 times the screw shank diameter.
4. The design thickness, t, is used in the calculation of the allowable pullout strength.
5. The effective pullover resistance diameter, d'w, is taken as the screw head diameter.
6. C645 screw penetration test is based on 3rd party independent testing.



SSMA CERTIFIED — CERTIFIED CODE COMPLIANT — STEEL FRAMING PRODUCT

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MATERIAL COMPOSITION

PrimeWall® EQ studs are made of cold-formed steel coils conforming to ASTM A653/A 653M Structural Steel Grade 55 (380), with 55ksi (380MPa) minimum yield strength and 70ksi (480MPa) minimum tensile strength. Coating is G40 (Z120) hot-dipped galvanized, or equivalent conforming to ASTM C 645. Steel material with G60 and G90 coating are available upon request.

Allowable Ceiling Spans

Member (name)	Similar to SSMA	F_y (ksi)	4 psf						6 psf					
			Lateral Support of Compression Flange						Lateral Support of Compression Flange					
			Unsupported			Midspan			Unsupported			Midspan		
			Joist Spacing (in.) o.c.			Joist Spacing (in.) o.c.			Joist Spacing (in.) o.c.			Joist Spacing (in.) o.c.		
			12	16	24	12	16	24	12	16	24	12	16	24
L/240														
362PWS134-19NS, 55ksi	362S125-30	55	10' 4" f	9' 7" f	8' 7" f	14' 3" f	13' 1" f	11' 8" f	9' 3" f	8' 7" f	7' 8" f	12' 8" f	11' 8" f	10' 4" f
600PWS134-21NS, 55ksi	600S125-30	55	12' 6" f	11' 7" f	10' 5" f	17' 4" f	16' 0" f	14' 4" f	11' 3" f	10' 5" f	9' 4" f	15' 6" f	14' 4" f	12' 10" f
L/360														
362PWS134-19NS, 55ksi	362S125-30	55	10' 4" f	9' 7" f	8' 7" f	14' 0"	12' 9"	11' 1"	9' 3" f	8' 7" f	7' 8" f	12' 3"	11' 1"	9' 8"
600PWS134-21NS, 55ksi	600S125-30	55	12' 6" f	11' 7" f	10' 5" f	17' 4" f	16' 0" f	14' 4" f	11' 3" f	10' 5" f	9' 4" f	15' 6" f	14' 4" f	12' 10" f

Table Notes
1. "f": flexure controls, "s": shear controls. No letter next to the allowable span means deflection controls.
2. All values are based on total load of assembly, not including storage or accessible ceilings.
3. All values are for simple spans, with compression flange either unbraced or braced at midspan.

Non-Composite Fully Braced Walls

Member (name)	Similar to SSMA	L_u (in.)	Spacing (in. o.c.)	5 psf			7.5 psf			10 psf		
				L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
362PWS134-19NS, 55ksi	362S125-30	26.6	12	18' 9"	14' 11"	13' 0"	16' 5"	13' 0"	11' 4"	14' 4" f	11' 10"	10' 4"
		26.6	16	17' 1"	13' 6"	11' 10"	14' 4" f	11' 10"	10' 4"	12' 5" f	10' 9"	9' 4"
		26.6	24	14' 4" f	11' 10"	10' 4"	11' 8" f	10' 4"	9' 0"	10' 1" f	9' 4"	8' 2"
600PWS134-21NS, 55ksi	600S125-30	25.7	12	27' 2" f	22' 4"	19' 6"	22' 2" f	19' 6"	17' 0"	19' 3" f	17' 8"	15' 5"
		25.7	16	23' 7" f	20' 3"	17' 8"	19' 3" f	17' 8"	15' 5"	16' 8" f	16' 1"	14' 0"
		25.7	24	19' 3" f	17' 8"	15' 5"	15' 8" f	15' 5"	13' 6"	13' 7" f	13' 7" f	12' 3"

Table Notes
1. "f": flexure controls, "s": shear controls. No letter next to the allowable height means deflection controls.
2. All values are calculated based on AISI S100-07: steel properties only.
3. Web crippling is not considered.

Table Notes con't
4. Based on bracing of the stud not to exceed L_u.
5. The factory punchouts are in accordance with AISI S201-07 Section C5. The distance from the center of the last punchout to the end of the stud is 12".

Non-Composite Walls Braced at 4' on Center

Member (name)	Similar to SSMA	Spacing (in. o.c.)	5 psf			7.5 psf			10 psf		
			L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
362PWS134-19NS, 55ksi	362S125-30	12	18' 9"	14' 11"	13' 0"	16' 5"	13' 0"	11' 4"	14' 4" f	11' 10"	10' 4"
		16	17' 1"	13' 6"	11' 10"	14' 4" f	11' 10"	10' 4"	12' 5" f	10' 9"	9' 4"
		24	14' 4" f	11' 10"	10' 4"	11' 8" f	10' 4"	9' 0"	10' 1" f	9' 4"	8' 2"
600PWS134-21NS, 55ksi	600S125-30	12	27' 2" f	22' 4"	19' 6"	22' 2" f	19' 6"	17' 0"	19' 3" f	17' 8"	15' 5"
		16	23' 7" f	20' 3"	17' 8"	19' 3" f	17' 8"	15' 5"	16' 8" f	16' 1"	14' 0"
		24	19' 3" f	17' 8"	15' 5"	15' 8" f	15' 5"	13' 6"	13' 7" f	13' 7" f	12' 3"

Table Notes
1. "f": flexure controls, "s": shear controls. No letter next to the allowable height means deflection controls.
2. All values are calculated based on AISI S100-07: steel properties only.
3. Web crippling is not considered.
4. Values based on discrete bracing of 48" o.c. restraining lateral and lateral/torsional buckling.
5. The factory punchouts are in accordance with AISI S201-07 Section C5. The distance from the center of the last punchout to the end of the stud is 12".

Order Information

Section	Lbs/Ft	Pcs/Skid
362PWS134-19NS, 55ksi	0.471	300
600PWS134-21NS, 55ksi	0.699	200