

# Premier SIPS Load Charts



## Load Charts With A Built-In Safety Factor

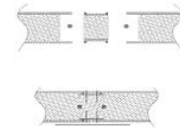
We believe that engineered wood products such as structural insulated panels (SIPs) cannot be understood unless full-scale, destructive testing is performed to obtain absolute values. Extrapolating data for structural design calculations is risky at best.

Premier credits our reputation of providing accurate data with our history of third party monitored testing that began in 1968. In 1997 we charted our widest course yet by embarking on an industry leading comprehensive structural stest program. These full-scale destructive tests by independent coe recognized laboratories have allowed Premier to achieve some of the highest load capacities of any SIPS products in the industry.

Along with the assurance of extensive testing and verification, Premier’s load charts also have an additional built-in safety factor. We have taken our SIPS products’ ultimate load at failure and divided this number by 3. The result is then used as the design load values, which follow.

### Axial Load Chart 1: Allowable Axial Loads (plf) for Premier Type S (Spline) SIPS

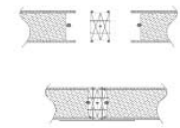
Panel Core Thickness	Wall Panel Height (ft.)					
	8'	10'	12'	16'	20'	24'
3 1/2"	3500	2553	2452	NA	NA	NA
5 1/2"	4250	4042	3373	3358	NA	NA
7 1/4"	4917	4325	4473	4194	3496	NA
9 1/4"	4200	4200	4200	4200	3389	NA
11 1/4"	3890	3890	3890	3890	3890	NA



- Axial loads represent ultimate load divided by a safety factor of 3
- Loads do not reflect secondary effect of P Δ
- More information on this chart can be found in Technical Bulletin #4 ([www.premiersips.com](http://www.premiersips.com))

### Axial Load Chart 2: Allowable Axial Loads (plf) for Premier Type L (Lumber) SIPS

Panel Core Thickness	Wall Panel Height (ft.)					
	8'	10'	12'	16'	20'	24'
3 1/2"	4723	3903	3094	2350	NA	NA
5 1/2"	5849	5889	4278	4311	NA	NA
7 1/4"	6850	6111	5556	5181	4835	NA
9 1/4"	5470	5470	5470	5470	5470	4250
11 1/4"	4500	4333	4167	3750	3750	3333



- Axial loads represent ultimate load divided by a safety factor of 3
- Loads do not reflect secondary effect of P Δ
- 2x's are spaced 4' on center
- More information on this chart can be found in Technical Bulletin #4 ([www.premiersips.com](http://www.premiersips.com))

### Transverse Load Chart 3: Premier SIPS Type S (Spline) Transverse Load Chart (psf)

Panel Core Thickness	Deflection	Panel Span (ft.)									
		4'	8'	10'	12'	14'	16'	18'	20'	22'	24'
3 1/2"	L/360	99	38	28	21	16	10	NA	NA	NA	NA
	L/240	151	54	43	32	24	16				
	L/180	154*	61*	57	45	34	21				
5 1/2"	L/360	102	49	38	30	24	18	14	11	NA	NA
	L/240	159	78	57	45	32	28	22	16		
	L/180	166*	80*	60*	46*	40*	34*	29	21		
7 1/4"	L/360	119	59	60	41	34	26	20	15	NA	NA
	L/240	160*	84	75*	60	50	39	31	23		
	L/180	160*	85*	75*	69*	60*	50*	41	31		
9 1/4"	L/360	138	78	64	53	41	33	27	22	20	17
	L/240	160*	86*	65*	57*	51*	46*	41	34	29	25
	L/180	160*	86*	65*	57*	51*	46*	42*	39*	37*	34
11 1/4"	L/360	115	94*	75	51	49	47	38	28	24	21
	L/240	160*	94*	76*	59*	55*	51*	45*	39*	36	31
	L/180	160*	94*	76*	59*	55*	51*	45*	39*	36*	33*

Maximum Floor Span

Maximum Roof Span

\* indicates ultimate load divided by 3 for the design capacity

4' span is a minimum two span condition

Panels require a minimum of 1 1/2" bearing

Floor panels should have a 3/4" minimum top skin or a 7/16" top skin overlaid with 7/16" finish flooring perpendicular to the panels

More information on this chart can be found in Technical Bulletin #18

(www.premiersips.com)

For floor applications refer to Technical Bulletin #21 (www.premiersips.com)



### Transverse Load Chart 4: Premier SIPS Type L (Lumber) Transverse Load Chart (psf)

Panel Core Thickness	Deflection	Panel Span (ft.)									
		4'	8'	10'	12'	14'	16'	18'	20'	22'	24'
3 1/2"	L/360	98	45	32	24	16	11	NA	NA	NA	NA
	L/240	225	67	47	34	24	16				
	L/180	298*	90	61	44	34	22				
5 1/2"	L/360	241	128	57	41	32	25	20	15	NA	NA
	L/240	288*	182*	86	60	49	37	29	22		
	L/180	288*	182*	112*	79	65	49	39	29		
7 1/4"	L/360	241	168	80	65	54	42	33	24	NA	NA
	L/240	288*	188*	126	99	81	61	49	34		
	L/180	288*	188*	133*	117*	105	80	62	44		
9 1/4"	L/360	274	188*	116	100	80	58	47	36	32	28
	L/240	326*	188*	147*	134*	120	90	70	52	46	41
	L/180	326*	188*	147*	134*	121*	108*	93	68	61	53
11 1/4"	L/360	327*	188*	167*	140	116	90	75	57	47	36
	L/240	327*	188*	167*	153*	132*	110*	97*	83*	69	53
	L/180	327*	188*	167*	153*	132*	110*	97*	83*	83*	70

Maximum Floor Span

Maximum Roof Span

\* indicates ultimate load divided by 3 for the design capacity

2x's are Hem-Fir #2 or equivalent

4' span is a minimum two span condition

Panels require a minimum of 1 1/2" bearing

Lumber splines are spaced 4' o.c.

Floor panels should have a 3/4" minimum top skin or a 7/16" top skin overlaid with 7/16" finish flooring perpendicular to the panels

More information on this chart can be found in Technical Bulletin #19 (www.premiersips.com)

For floor applications refer to Technical Bulletin #21 (www.premiersips.com)



## Transverse Load Chart 5: Premier SIPS Type I (I-Joist) Transverse Load Chart (psf)

Panel Core Thickness	Deflection	Panel Span (ft.)									
		4'	8'	10'	12'	14'	16'	18'	20'	22'	24'
7 1/4"	L/360	132	136	93	60	48	40	29	21	NA	NA
	L/240	318*	148*	107*	91	70	54	42	31		
	L/180	318*	148*	107*	92*	85	54	48	40		
9 1/4"	L/360	197	164*	124*	72	66	61	48	34	29	24
	L/240	318*	164*	124*	107*	96*	84*	70	49	43	36
	L/180	318*	164*	124*	107*	96*	84*	76*	65	56	47
11 1/4"	L/360	258	143*	103*	86	83	77*	61	42	37	31
	L/240	318*	143*	103*	93*	85*	77*	68*	59*	54*	47
	L/180	318*	143*	103*	93*	85*	77*	68*	59*	54*	49*

\* indicates ultimate load divided by 3 for the design capacity

4' span is a minimum two span condition

Panels require a minimum of 1 1/2" bearing

I-Joist splines are spaced 4' o.c.

Floor panels should have a 3/4" minimum top skin or a 7/16" top skin overlaid with 7/16" finish flooring perpendicular to the panels

More information on this chart can be found in Premier Technical Bulletin #13 ([www.premiersips.com](http://www.premiersips.com))

Refer to Technical Bulletin #21 for floor applications ([www.premiersips.com](http://www.premiersips.com))

Maximum Floor Span      Maximum Roof Span



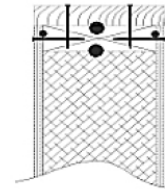
## Load Chart 6:

Point Load Design Values on Premier Wall SIPS

	1 1/2" min. bearing width	3" min. bearing width
Standard Detail	2040 lbs.	2450 lbs.
Additional Cap Plate	4030 lbs.	4678 lbs.

More information on this chart can be found in Premier Technical Bulletin #2 ([www.premiersips.com](http://www.premiersips.com))

Refer to Premier Detail-010 for cap plate detail ([www.premiersips.com](http://www.premiersips.com))



## Questions:

Contact the Distributor you purchased the SIP Tape from, or your local Premier Representative at 1-800-275-7086.

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Email: [info@premierips.com](mailto:info@premierips.com)

Toll Free: 800-275-7086