

## **TS-324 Panel Properties**



Section Properties									
			Top Flat In Compression			Bottom Flat In Compression			
Panel gauge	Fy (ksi)	Weight (psf)	lx(in^4)	Sx (in^3/ft.)	Ma (kip-in)	lx(in^4)	Sx (in^3/ft.)	Ma (kip-in)	
24	50	1.133	0.3620	0.1517	4.541	0.1520	0.0924	2.766	
22	50	1.406	0.4475	0.1875	5.626	0.1965	0.1235	3.698	

### NOTES:

1. Section properties and allowable are calculated in accordance with North American Specification for the Design of Cold-Formed Steel Structural Members (2001 Edition & 2004 Supplement)

- 2. I +/- is for deflection determination, S +/- is for bending determination.
- 3. Ma is allowable bending moment and Va is allowable shear.
- 4. All values are for one foot of panel width.

The Engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the North *American Specification for the Design of Cold-Formed Steel Structural Members* published by the American Iron and Steel Institute to facilitate design. The Specification contains the design criteria for the cold-formed steel components. Along with the Specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If the information or guidance regarding cold-formed design practice is desired, please contact the manufacturer.



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#### ALLOWABLE USABLE LOADS IN POUNDS PER SQUARE FOOT

Gauge	Span Condition		2.00	2.50	3.00	3.50	4.00	4.50	5.00
24	SS	Stress	756.8	484.3	336.3	247.1	189.2	149.5	121.1
		(L/180)	3955.2	2025.1	1171.9	738.0	494.4	347.2	253.1
	DS	Stress	379.9	258.5	186.2	140.1	109.0	87.1	71.1
		(L/180)	9519.4	4873.9	2820.6	1776.2	1189.9	835.7	609.2
	TS	Stress	424.4	292.2	212.2	160.5	125.3	100.4	82.2
		(L/180)	7463.7	3821.4	2211.5	1392.7	933.0	655.3	477.7

22	SS	Stress	937.6	600.1	416.7	306.1	234.4	185.2	150.0
		(L/180)	4889.4	2503.3	1448.7	912.3	611.2	429.2	312.9
	DS	Stress	513.0	348.1	250.3	188.1	146.2	116.7	95.3
		(L/180)	11767.7	6025.1	3486.7	2195.7	1471.0	1033.1	753.1
	TS	Stress	574.1	394.1	285.6	215.7	168.2	134.7	110.2
		(L/180)	9226.6	4724.0	2733.8	1721.6	1153.3	810.0	590.5

#### NOTES:

1. Allowable loads based on stress is the smallest load due to bending, shear and combined bending and shear.

2. Allowable loads based on deflection limit cannot exceed allowable load based on stress.

3. These loads are for panel strength. Frames, purlins, clips, fasteners and all supports must be designed to resist all loads imposed on the panel.

4. Allowable uplift loads based on stress have not been increased by 33.33% for wind uplift.

5. Allowable loads for deflection are based on deflection limitation of span/180.

6. For roof panels, self weight of the panel has to be deducted from the allowable inward load to arrive at the actual "live load" carrying capacity of the panel.

7. SS = Simple Span, DS = Double Span, TS = Three of more spans.

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