TAYLOR METAL PRODUCTS

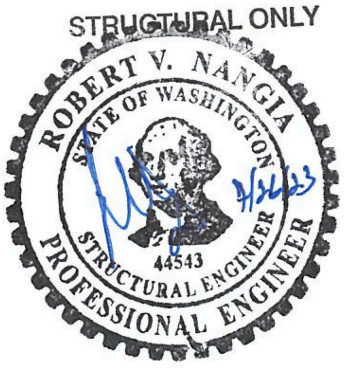
Shadowline 12-3™
Wall and Soffit
With high wind clip

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various clip spacings (i.e. span values)						
				Top in Compression			Bottom in Compression			Negative Load						
Width, in.	Gauge	Yield ksi	Weight psf	I_{xx} $in^4/ft.$	$I_{xx\ (eff)}$ $in^4/ft.$	S_{xx} in^3/ft	I_{xx} $in^4/ft.$	$I_{xx\ (eff)}$ $in^4/ft.$	S_{xx} in^3/ft	1'	1.5'	2'	2.5'	3'	3.5'	4'
15	24	50	1.58	0.0424	0.0530	0.0466	0.0790	0.0684	0.0654	119.7	104.5	89.3	74.1	59.0	43.8	28.6
15	22	50	1.87	0.0528	0.0662	0.0594	0.0992	0.0857	0.0835	119.7	104.5	89.3	74.1	59.0	43.8	28.6
15	20	33	2.29	0.0760	0.0966	0.0914	0.1472	0.1265	0.1306	119.7	104.5	89.3	74.1	59.0	43.8	28.6
15	18	33	2.97	0.1096	0.0947	0.1393	0.2008	0.1743	0.1844	119.7	104.5	89.3	74.1	59.0	43.8	28.6

1. Theoretical section properties for steel panels have been calculated per AISI S100 Specification for the Design of Cold-Formed Steel Structural Members.
2. $I_{xx\ (eff)}$ values are "effective" stiffness properties for positive (downward) load induced deflection determination.
3. S_{xx} values are to be used for flexural (bending) stress determination.
4. Charted Load/Span values are based on ASTM E1592-05 (2017) testing protocol.
5. Charted Load/Span values above are based on Allowable Stress Design (ASD).....Load Resistance Factor Design (LRFD) technique not recommended for charted values.
6. Charted Allowable Uniform Loads are based on the Ultimate Uniform Load (per ASTM E1592-05 testing) divided by a 2.00 Factor-of-Safety.
7. Charted Allowable Uniform Loads do not consider panel weight (Dead Load) or clip-to-substrate (structure) fastener connection strength.
8. Clip-to-substrate (structure) fastener evaluation and analysis should be performed by a licensed structural engineer.
9. Minimum recommended substrate (structure) recommendations:
   a. Open-framing (i.e. purlins) - 16 ga. (design thickness = 0.0566")
   b. Plywood/OSB - 15/32" or thicker is recommended to assure an effective degree of fastener thread engagement
   c. Metal deck - 22 ga. (design thickness = 0.0283")
10. Panel tested using 16 ga. High Wind Clip
11. Deflection limit consideration for positive (downward) loading is limited to a deflection ratio of L/180 of the span....where "L" is the span in inches.
12. Charted Allowable Uniform Loads cannot be increased by 1/3.

				SECTION PROPERTIES						ALLOWABLE UNIFORM LOADS, psf For various fastener spacings (i.e. span values)									
				Top in Compression			Bottom in Compression			Positive Load									
Width, in.	Gauge	Yield ksi	Weight psf	I_{xx} $in^4/ft.$	$I_{xx\ (eff)}$ $in^4/ft.$	S_{xx} in^3/ft	I_{xx} $in^4/ft.$	$I_{xx\ (eff)}$ $in^4/ft.$	S_{xx} in^3/ft	1'	2'	3'	4'	5'	6'	7'	8'	9'	10'
15	24	50	1.58	0.0424	0.0530	0.0466	0.0790	0.0684	0.0654	306.4	153.2	102.1	72.8	46.6	32.3	23.8	18.2	14.4	11.6
15	22	50	1.87	0.0528	0.0662	0.0594	0.0992	0.0857	0.0835	500.9	250.5	164.9	92.8	59.4	41.2	30.3	23.2	18.3	14.8
15	20	33	2.29	0.0760	0.0966	0.0914	0.1472	0.1265	0.1306	469.1	234.6	156.4	94.3	60.3	41.9	30.8	23.6	18.6	15.1
15	18	33	2.97	0.1096	0.0947	0.1393	0.2008	0.1743	0.1844	810.0	405.0	255.4	143.7	91.9	63.9	46.9	35.9	28.4	23.0

1a. Theoretical section properties for steel panels have been calculated per AISI S100 Specification for the Design of Cold-Formed Steel Structural Members.
1b. Theoretical section properties for aluminum panels have been calculated per the latest edition of the Aluminum Association Design Manual.
2. $I_{xx\ (eff)}$ values are "effective" stiffness properties for positive (downward) load induced deflection determination.
3. Allowable load is calculated in accordance with AISI 2012 specifications considering bending, shear, combined bending and shear and deflection. Allowable load considers a 3 or more equal span condition.
4. S_{xx} values are to be used for flexural (bending) stress determination.
5. Allowable load does not address web crippling, fasteners, connection strength or support material.
6. Panel weight is not considered.
7. Load/Span values are based on theoretical computations and not load testing.
8. Deflection is not considered.
9. Allowable loads do not include a 1/3 stress increase for wind.



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