Agri-Line

Technical/Installation Information

IMPORTANT NOTICE

MOST OF THE AGRI-LINE LOAD TABLES INDICATE THE .016 NOMINAL THICKNESS PANELS CAN OBTAIN A 20# LIVE LOAD ON 4'-0" OR 5'-0" CENTERS. PLEASE KEEP IN MIND THESE ARE UNIFORM LIVE LOADS AND WILL NOT SUPPORT A 200 POUND MAN STANDING ON ONE SQUARE FOOT. FROM AN ERECTABILITY AND INDUSTRY STANDARD POINT OF VIEW, IT IS RECOMMENDED THAT YOU SHOULD NOT SPAN THE PANELS MORE THAN 3'-0".

ALWAYS INSPECT EACH AND EVERY PANEL AND ALL ACCESSORIES BEFORE INSTALLATION. NEVER INSTALL ANY PRODUCT IF ITS QUALITY IS IN QUESTION. NOTIFY MBCI IMMEDIATELY IF ANY PRODUCT IS BELIEVED TO BE OUT OF TOLERANCE, SPECIFICATION OR HAS BEEN DAMAGED DURING SHIPMENT.

IF THERE IS A CONFLICT BETWEEN PROJECT ERECTION DRAWINGS PROVIDED OR APPROVED BY THE MANUFACTURER AND DETAILS IN THIS MANUAL, PROJECT ERECTION DRAWINGS WILL TAKE PRECEDENCE.

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. This Specification contains the design criteria for 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 further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.

Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. In a continuing effort to refine and improve products, MBCI reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. To ensure you have the latest information available, please inquire or visit our website at www.mbci.com. Application details are for illustration purposes only and may not be appropriate for all environmental conditions, building designs, or panel profiles. Projects should be engineered to conform to applicable building codes, regulations, and accepted industry practices. Insulation is not shown in these details for clarity.

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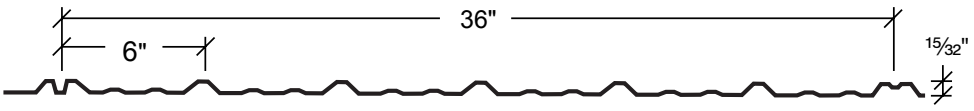
PRODUCT INFORMATION

RAIN GUARD®
36" Coverage



Panel Section Properties											
						Negative Bending			Positive Bending		
Panel Gauge	Fy (Ksi)	Weight (Psf)	Va (Kips/Ft)	Pa,end (Kips/Ft)	Pa,int (Kips/Ft)	Ixe ($In.^4$/Ft.)	Sxe ($In.^3$/Ft.)	Maxo (Kip-In./Ft.)	Ixe ($In.^4$/Ft.)	Sxe ($In.^3$/Ft.)	Maxo (Kip-In./Ft.)
29	60 *	0.63	0.453	0.177	0.242	0.0021	0.0084	0.352	0.0039	0.0107	0.511
26	60 *	0.84	0.624	0.316	0.447	0.0030	0.0123	0.528	0.0054	0.0148	0.710

* Panels are made from 80 ksi yield material. Flexural effective yield strengths vary by direction of bending. Shear and web crippling capacities have been determined using an effective yield strength of 60 ksi.

NOTES:

1. All calculations for the properties of Rain Guard panels are calculated in accordance with the 2012 S100 AISI "North American Specification for the Design of Cold-formed Steel Structural Members".
2. Va = allowable transverse shear per foot of panel width.
3. Pa,end = allowable web crippling load at the panel end support per foot of panel width.
4. Pa,int = allowable web crippling load at interior panel supports per foot of panel width.
5. Ixe = effective moment of inertia per foot of panel width at nominal moment capacity.
6. Sxe = effective section modulus per foot of panel width at nominal moment capacity.
7. Maxo = allowable bending moment based on initiation of yielding.

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PRODUCT INFORMATION

RAIN GUARD®
36" Coverage

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

29 Gauge thickness

Span Type	Load Type	Support Spacing						
		2 Ft.	2.5 Ft.	3 Ft.	3.5 Ft.	4 Ft.	4.5 Ft.	5 Ft.
1-span	**NEGATIVE WIND LOAD**	58.71	37.58	26.09	18.04	12.09	8.49	6.19
	LIVE LOAD/DEFLECTION - L/60	85.23	54.55	37.82	23.82	15.95	11.21	8.17
	LIVE LOAD/DEFLECTION - L/180	42.54	21.78	12.61	7.94	5.32	3.74	2.72
	LIVE LOAD/DEFLECTION - L/240	31.91	16.34	9.45	5.95	3.99	2.80	2.04
2-span	**NEGATIVE WIND LOAD**	82.97	53.61	37.42	27.58	21.16	16.74	13.58
	LIVE LOAD/DEFLECTION - L/60	57.96	37.26	25.94	19.09	14.63	11.57	9.37
	LIVE LOAD/DEFLECTION - L/180	57.96	37.26	25.94	19.09	13.16	9.24	6.74
	LIVE LOAD/DEFLECTION - L/240	57.96	37.26	23.39	14.73	9.87	6.93	5.05
3-span	**NEGATIVE WIND LOAD**	91.74	58.71	40.77	29.96	22.93	17.53	12.78
	LIVE LOAD/DEFLECTION - L/60	72.04	46.41	32.35	23.82	18.26	14.44	11.71
	LIVE LOAD/DEFLECTION - L/180	72.04	41.90	24.25	15.27	10.23	7.18	5.24
	LIVE LOAD/DEFLECTION - L/240	61.37	31.42	18.18	11.45	7.67	5.39	3.93
4-span	**NEGATIVE WIND LOAD**	95.10	60.87	42.27	31.05	23.78	18.61	13.57
	LIVE LOAD/DEFLECTION - L/60	67.37	43.37	30.22	22.24	17.05	13.49	10.93
	LIVE LOAD/DEFLECTION - L/180	67.37	43.37	25.78	16.24	10.88	7.64	5.57
	LIVE LOAD/DEFLECTION - L/240	65.26	33.41	19.34	12.18	8.16	5.73	4.18

26 Gauge thickness

Span Type	Load Type	Support Spacing						
		2 Ft.	2.5 Ft.	3 Ft.	3.5 Ft.	4 Ft.	4.5 Ft.	5 Ft.
1-span	**NEGATIVE WIND LOAD**	88.07	56.37	39.14	26.07	17.47	12.27	8.94
	LIVE LOAD/DEFLECTION - L/60	118.25	75.68	52.56	33.21	22.25	15.62	11.39
	LIVE LOAD/DEFLECTION - L/180	59.32	30.37	17.58	11.07	7.42	5.21	3.80
	LIVE LOAD/DEFLECTION - L/240	44.49	22.78	13.18	8.30	5.56	3.91	2.85
2-span	**NEGATIVE WIND LOAD**	115.07	74.36	51.91	38.26	29.36	23.23	18.84
	LIVE LOAD/DEFLECTION - L/60	86.73	55.81	38.88	28.61	21.93	17.34	14.06
	LIVE LOAD/DEFLECTION - L/180	86.73	55.81	38.88	27.52	18.44	12.95	9.44
	LIVE LOAD/DEFLECTION - L/240	86.73	55.81	32.78	20.64	13.83	9.71	7.08
3-span	**NEGATIVE WIND LOAD**	137.61	88.07	61.16	44.94	34.40	25.43	18.54
	LIVE LOAD/DEFLECTION - L/60	107.71	69.47	48.45	35.69	27.37	21.65	17.55
	LIVE LOAD/DEFLECTION - L/180	107.71	58.59	33.91	21.35	14.30	10.05	7.32
	LIVE LOAD/DEFLECTION - L/240	85.83	43.94	25.43	16.01	10.73	7.53	5.49
4-span	**NEGATIVE WIND LOAD**	133.24	86.33	60.36	44.53	34.18	27.06	19.82
	LIVE LOAD/DEFLECTION - L/60	100.76	64.94	45.27	33.33	25.56	20.22	16.39
	LIVE LOAD/DEFLECTION - L/180	100.76	62.36	36.09	22.73	15.22	10.69	7.79
	LIVE LOAD/DEFLECTION - L/240	91.35	46.77	27.07	17.04	11.42	8.02	5.85

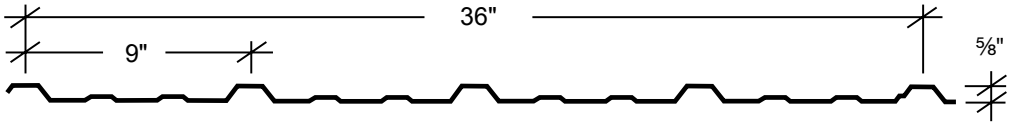
Notes:

1. Strength calculations are based on the 2012 S100 AISI "North American Specification for the Design of Cold-formed Steel Structural Members".
2. Allowable loads are applicable for uniform loading and spans without overhangs.
3. LIVE LOAD/DEFLECTION capacities are for those loads that push the panel against its support. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and the strength-level load deflection limit shown.
4. Capacities for LIVE LOAD/DEFLECTION pressure loading are determined as the smaller of the LIVE LOAD/DEFLECTION - Strength and the required deflection limit values listed.
5. NEGATIVE WIND LOAD capacities are for those loads that pull the panel away the support. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
6. Panel pullover and screw pullout connection capacities need to be checked separately for the particular fasteners employed using tributary area-based connection loads.
7. Effective yield strength has been determined in accordance with section A2.3.3 of the 2012 AISI S100 specification.
8. The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
9. This material is subject to change without notice. Please contact MBCI for most current data.

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. This Specification contains the design criteria for 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 further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.

PRODUCT INFORMATION

PERMA-CLAD®
36" Coverage



Panel Section Properties											
						Negative Bending			Positive Bending		
Panel Gauge	Fy (Ksi)	Weight (Psf)	Va (Kips/Ft)	Pa,end (Kips/Ft)	Pa,int (Kips/Ft)	Ixe ($In.^4$/Ft.)	Sxe ($In.^3$/Ft.)	Maxo (Kip-In./Ft.)	Ixe ($In.^4$/Ft.)	Sxe ($In.^3$/Ft.)	Maxo (Kip-In./Ft.)
29	60 *	0.63	0.398	0.133	0.184	0.0037	0.0120	0.490	0.0061	0.0124	0.543
26	60 *	0.84	0.548	0.239	0.341	0.0055	0.0168	0.702	0.0091	0.0187	0.843

* Panels are made from 80 ksi yield material. Flexural effective yield strengths vary by direction of bending. Shear and web crippling capacities have been determined using an effective yield strength of 60 ksi.

NOTES:

1. All calculations for the properties of Perma-Clad panels are calculated in accordance with the 2012 S100 AISI "North American Specification for the Design of Cold-formed Steel Structural Members".
2. Va = allowable transverse shear per foot of panel width.
3. Pa,end = allowable web crippling load at the panel end support per foot of panel width.
4. Pa,int = allowable web crippling load at interior panel supports per foot of panel width.
5. Ixe = effective moment of inertia per foot of panel width at nominal moment capacity.
6. Sxe = effective section modulus per foot of panel width at nominal moment capacity.
7. Maxo = allowable bending moment based on initiation of yielding.

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. This Specification contains the design criteria for 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 further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.

PRODUCT INFORMATION

PERMA-CLAD®
36" Coverage

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

29 Gauge thickness								
Span Type	Load Type	Support Spacing						
		2 Ft.	2.5 Ft.	3 Ft.	3.5 Ft.	4 Ft.	4.5 Ft.	5 Ft.
1-span	**NEGATIVE WIND LOAD**	81.63	52.24	36.28	26.65	20.41	15.41	11.24
	LIVE LOAD/DEFLECTION - L/60	90.48	57.91	40.21	29.54	22.62	17.45	12.72
	LIVE LOAD/DEFLECTION - L/180	66.27	33.93	19.63	12.36	8.28	5.82	4.24
	LIVE LOAD/DEFLECTION - L/240	49.70	25.45	14.73	9.27	6.21	4.36	3.18
2-span	**NEGATIVE WIND LOAD**	87.03	56.46	39.51	29.16	22.39	17.73	14.38
	LIVE LOAD/DEFLECTION - L/60	73.77	51.18	35.76	26.37	20.24	16.02	12.99
	LIVE LOAD/DEFLECTION - L/180	73.77	51.18	35.76	26.37	20.24	16.02	11.77
	LIVE LOAD/DEFLECTION - L/240	73.77	51.18	35.76	25.74	17.24	12.11	8.83
3-span	**NEGATIVE WIND LOAD**	107.04	69.83	49.01	36.25	27.87	22.09	17.93
	LIVE LOAD/DEFLECTION - L/60	83.83	63.41	44.42	32.81	25.21	19.97	16.20
	LIVE LOAD/DEFLECTION - L/180	83.83	63.41	41.93	26.40	17.69	12.42	9.06
	LIVE LOAD/DEFLECTION - L/240	83.83	54.34	31.45	19.80	13.27	9.32	6.79
4-span	**NEGATIVE WIND LOAD**	100.47	65.42	45.87	33.90	26.05	20.64	16.75
	LIVE LOAD/DEFLECTION - L/60	80.69	59.36	41.55	30.68	23.56	18.66	15.14
	LIVE LOAD/DEFLECTION - L/180	80.69	59.36	41.55	28.24	18.92	13.29	9.69
	LIVE LOAD/DEFLECTION - L/240	80.69	58.12	33.63	21.18	14.19	9.97	7.27

26 Gauge thickness								
Span Type	Load Type	Support Spacing						
		2 Ft.	2.5 Ft.	3 Ft.	3.5 Ft.	4 Ft.	4.5 Ft.	5 Ft.
1-span	**NEGATIVE WIND LOAD**	117.01	74.89	52.01	38.21	29.25	22.53	16.42
	LIVE LOAD/DEFLECTION - L/60	140.46	89.89	62.43	45.86	35.11	26.17	19.08
	LIVE LOAD/DEFLECTION - L/180	99.36	50.87	29.44	18.54	12.42	8.72	6.36
	LIVE LOAD/DEFLECTION - L/240	74.52	38.15	22.08	13.90	9.31	6.54	4.77
2-span	**NEGATIVE WIND LOAD**	133.75	87.08	61.05	45.11	34.67	27.47	22.29
	LIVE LOAD/DEFLECTION - L/60	113.05	73.24	51.20	37.77	29.00	22.95	18.62
	LIVE LOAD/DEFLECTION - L/180	113.05	73.24	51.20	37.77	29.00	22.35	16.29
	LIVE LOAD/DEFLECTION - L/240	113.05	73.24	51.20	35.62	23.86	16.76	12.22
3-span	**NEGATIVE WIND LOAD**	163.86	107.40	75.59	55.99	43.10	34.19	27.77
	LIVE LOAD/DEFLECTION - L/60	139.29	90.68	63.57	46.98	36.11	28.60	23.21
	LIVE LOAD/DEFLECTION - L/180	139.29	90.68	59.13	37.24	24.95	17.52	12.77
	LIVE LOAD/DEFLECTION - L/240	139.29	76.64	44.35	27.93	18.71	13.14	9.58
4-span	**NEGATIVE WIND LOAD**	154.02	100.71	70.78	52.39	40.31	31.96	25.95
	LIVE LOAD/DEFLECTION - L/60	130.66	84.92	59.47	43.92	33.74	26.73	21.68
	LIVE LOAD/DEFLECTION - L/180	130.66	84.92	59.47	39.53	26.48	18.60	13.56
	LIVE LOAD/DEFLECTION - L/240	130.66	81.35	47.08	29.65	19.86	13.95	10.17

Notes:

1. Strength calculations are based on the 2012 S100 AISI "North American Specification for the Design of Cold-formed Steel Structural Members".
2. Allowable loads are applicable for uniform loading and spans without overhangs.
3. LIVE LOAD/DEFLECTION capacities are for those loads that push the panel against its support. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and the strength-level load deflection limit shown.
4. Capacities for LIVE LOAD/DEFLECTION pressure loading are determined as the smaller of the LIVE LOAD/DEFLECTION - Strength and the required deflection limit values listed.
5. NEGATIVE WIND LOAD capacities are for those loads that pull the panel away the support. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
6. Panel pullover and screw pullout connection capacities need to be checked separately for the particular fasteners employed using tributary area-based connection loads.
7. Effective yield strength has been determined in accordance with section A2.3.3 of the 2012 AISI S100 specification.
8. The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
9. This material is subject to change without notice. Please contact MBCI for most current data.

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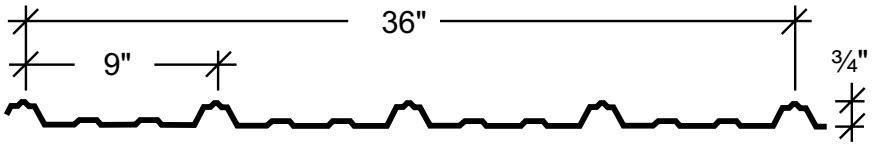
PRODUCT INFORMATION

STORMPROOF®
36" Coverage



Panel Section Properties											
						Negative Bending			Positive Bending		
Panel Gauge	Fy (Ksi)	Weight (Psf)	Va (Kips/Ft)	Pa,end (Kips/Ft)	Pa,int (Kips/Ft)	Ixe ($In.^4$/Ft.)	Sxe ($In.^3$/Ft.)	Maxo (Kip-In./Ft.)	Ixe ($In.^4$/Ft.)	Sxe ($In.^3$/Ft.)	Maxo (Kip-In./Ft.)
29	60 *	0.63	0.361	0.139	0.191	0.0042	0.0115	0.459	0.0079	0.0138	0.596
26	60 *	0.82	0.494	0.249	0.352	0.0061	0.0162	0.664	0.0110	0.0193	0.854

* Panels are made from 80 ksi yield material. Flexural effective yield strengths vary by direction of bending. Shear and web crippling capacities have been determined using an effective yield strength of 60 ksi.

NOTES:

1. All calculations for the properties of StormProof panels are calculated in accordance with the 2012 S100 AISI "North American Specification for the Design of Cold-formed Steel Structural Members".
2. Va = allowable transverse shear per foot of panel width.
3. Pa,end = allowable web crippling load at the panel end support per foot of panel width.
4. Pa,int = allowable web crippling load at interior panel supports per foot of panel width.
5. Ixe = effective moment of inertia per foot of panel width at nominal moment capacity.
6. Sxe = effective section modulus per foot of panel width at nominal moment capacity.
7. Maxo = allowable bending moment based on initiation of yielding.

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PRODUCT INFORMATION

STORMPROOF®
36" Coverage

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

29 Gauge thickness								
Span Type	Load Type	Support Spacing						
		2 Ft.	2.5 Ft.	3 Ft.	3.5 Ft.	4 Ft.	4.5 Ft.	5 Ft.
1-span	**NEGATIVE WIND LOAD**	76.55	48.99	34.02	25.00	19.14	15.12	12.25
	LIVE LOAD/DEFLECTION - L/60	99.36	63.59	44.16	32.45	24.84	19.63	15.90
	LIVE LOAD/DEFLECTION - L/180	86.19	44.13	25.54	16.08	10.77	7.57	5.52
	LIVE LOAD/DEFLECTION - L/240	64.64	33.10	19.15	12.06	8.08	5.67	4.14
2-span	**NEGATIVE WIND LOAD**	93.95	61.31	43.04	31.84	24.48	19.40	15.75
	LIVE LOAD/DEFLECTION - L/60	73.99	47.92	33.50	24.71	18.97	15.02	12.18
	LIVE LOAD/DEFLECTION - L/180	73.99	47.92	33.50	24.71	18.97	15.02	12.18
	LIVE LOAD/DEFLECTION - L/240	73.99	47.92	33.50	24.71	18.97	14.32	10.44
3-span	**NEGATIVE WIND LOAD**	114.79	75.48	53.16	39.06	29.90	23.63	19.14
	LIVE LOAD/DEFLECTION - L/60	86.59	59.35	41.60	30.74	23.62	18.71	15.19
	LIVE LOAD/DEFLECTION - L/180	86.59	59.35	41.60	30.74	21.00	14.75	10.75
	LIVE LOAD/DEFLECTION - L/240	86.59	59.35	37.34	23.51	15.75	11.06	8.07
4-span	**NEGATIVE WIND LOAD**	107.99	70.82	49.86	36.95	28.44	22.56	18.33
	LIVE LOAD/DEFLECTION - L/60	83.35	55.57	38.92	28.74	22.08	17.49	14.19
	LIVE LOAD/DEFLECTION - L/180	83.35	55.57	38.92	28.74	22.08	15.73	11.47
	LIVE LOAD/DEFLECTION - L/240	83.35	55.57	38.92	25.07	16.80	11.80	8.60

26 Gauge thickness								
Span Type	Load Type	Support Spacing						
		2 Ft.	2.5 Ft.	3 Ft.	3.5 Ft.	4 Ft.	4.5 Ft.	5 Ft.
1-span	**NEGATIVE WIND LOAD**	110.60	70.79	49.16	36.12	27.65	21.85	17.70
	LIVE LOAD/DEFLECTION - L/60	142.30	91.07	63.24	46.46	35.57	28.11	22.77
	LIVE LOAD/DEFLECTION - L/180	120.15	61.52	35.60	22.42	15.02	10.55	7.69
	LIVE LOAD/DEFLECTION - L/240	90.11	46.14	26.70	16.81	11.26	7.91	5.77
2-span	**NEGATIVE WIND LOAD**	133.88	87.51	61.50	45.51	35.01	27.76	22.54
	LIVE LOAD/DEFLECTION - L/60	106.51	69.08	48.32	35.66	27.38	21.68	17.59
	LIVE LOAD/DEFLECTION - L/180	106.51	69.08	48.32	35.66	27.38	21.68	17.59
	LIVE LOAD/DEFLECTION - L/240	106.51	69.08	48.32	35.66	27.38	19.84	14.46
3-span	**NEGATIVE WIND LOAD**	163.28	107.59	75.97	56.39	43.20	34.14	27.65
	LIVE LOAD/DEFLECTION - L/60	131.06	85.45	59.96	44.34	34.09	27.01	21.92
	LIVE LOAD/DEFLECTION - L/180	131.06	85.45	59.96	43.78	29.33	20.60	15.02
	LIVE LOAD/DEFLECTION - L/240	131.06	85.45	52.14	32.83	22.00	15.45	11.26
4-span	**NEGATIVE WIND LOAD**	153.71	101.00	71.20	52.79	40.67	32.27	26.22
	LIVE LOAD/DEFLECTION - L/60	123.00	80.05	56.11	41.46	31.86	25.24	20.48
	LIVE LOAD/DEFLECTION - L/180	123.00	80.05	56.11	41.46	31.20	21.91	15.98
	LIVE LOAD/DEFLECTION - L/240	123.00	80.05	55.47	34.93	23.40	16.44	11.98

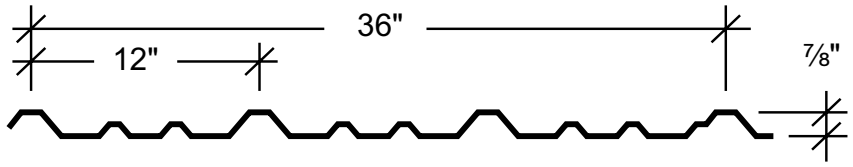
Notes:

1. Strength calculations are based on the 2012 S100 AISI "North American Specification for the Design of Cold-formed Steel Structural Members".
2. Allowable loads are applicable for uniform loading and spans without overhangs.
3. LIVE LOAD/DEFLECTION capacities are for those loads that push the panel against its support. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and the strength-level load deflection limit shown.
4. Capacities for LIVE LOAD/DEFLECTION pressure loading are determined as the smaller of the LIVE LOAD/DEFLECTION - Strength and the required deflection limit values listed.
5. NEGATIVE WIND LOAD capacities are for those loads that pull the panel away the support. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
6. Panel pullover and screw pullout connection capacities need to be checked separately for the particular fasteners employed using tributary area-based connection loads.
7. Effective yield strength has been determined in accordance with section A2.3.3 of the 2012 AISI S100 specification.
8. The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
9. This material is subject to change without notice. Please contact MBCI for most current data.

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. This Specification contains the design criteria for 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 further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.

PRODUCT INFORMATION

WEATHERSAFE®
36" Coverage



Panel Section Properties											
						Negative Bending			Positive Bending		
Panel Gauge	Fy (Ksi)	Weight (Psf)	Va (Kips/Ft)	Pa,end (Kips/Ft)	Pa,int (Kips/Ft)	Ixe ($In.^4$/Ft.)	Sxe ($In.^3$/Ft.)	Maxo (Kip-In./Ft.)	Ixe ($In.^4$/Ft.)	Sxe ($In.^3$/Ft.)	Maxo (Kip-In./Ft.)
29	60 *	0.63	0.240	0.086	0.133	0.0065	0.0139	0.538	0.0099	0.0130	0.591
26	60 *	0.82	0.529	0.157	0.446	0.0095	0.0195	0.783	0.0156	0.0211	1.009

* Panels are made from 80 ksi yield material. Flexural effective yield strengths vary by direction of bending. Shear and web crippling capacities have been determined using an effective yield strength of 60 ksi.

NOTES:

1. All calculations for the properties of Retro-R panels are calculated in accordance with the 2012 S100 AISI "North American Specification for the Design of Cold-formed Steel Structural Members".
2. Va = allowable transverse shear per foot of panel width.
3. Pa,end = allowable web crippling load at the panel end support per foot of panel width.
4. Pa,int = allowable web crippling load at interior panel supports per foot of panel width.
5. Ixe = effective moment of inertia per foot of panel width at nominal moment capacity.
6. Sxe = effective section modulus per foot of panel width at nominal moment capacity.
7. Maxo = allowable bending moment based on initiation of yielding.

PRODUCT INFORMATION

WEATHERSAFE®
36" Coverage

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

29 Gauge thickness								
Span Type	Load Type	Support Spacing						
		2 Ft.	2.5 Ft.	3 Ft.	3.5 Ft.	4 Ft.	4.5 Ft.	5 Ft.
1-span	**NEGATIVE WIND LOAD**	89.63	57.36	39.83	29.27	22.41	17.70	14.34
	LIVE LOAD/DEFLECTION - L/60	86.43	63.01	43.76	32.15	24.61	19.45	15.75
	LIVE LOAD/DEFLECTION - L/180	86.43	55.19	31.94	20.11	13.47	9.46	6.90
	LIVE LOAD/DEFLECTION - L/240	80.84	41.39	23.95	15.08	10.11	7.10	5.17
2-span	**NEGATIVE WIND LOAD**	87.64	58.31	41.41	30.86	23.85	18.96	15.43
	LIVE LOAD/DEFLECTION - L/60	53.12	42.49	35.41	28.28	21.82	17.34	14.10
	LIVE LOAD/DEFLECTION - L/180	53.12	42.49	35.41	28.28	21.82	17.34	14.10
	LIVE LOAD/DEFLECTION - L/240	53.12	42.49	35.41	28.28	21.82	17.34	14.10
3-span	**NEGATIVE WIND LOAD**	104.87	70.69	50.62	37.92	29.41	23.45	19.12
	LIVE LOAD/DEFLECTION - L/60	60.36	48.29	40.24	34.49	26.97	21.48	17.49
	LIVE LOAD/DEFLECTION - L/180	60.36	48.29	40.24	34.49	26.97	21.48	16.16
	LIVE LOAD/DEFLECTION - L/240	60.36	48.29	40.24	34.49	23.67	16.63	12.12
4-span	**NEGATIVE WIND LOAD**	99.36	66.68	47.61	35.60	27.58	21.97	17.90
	LIVE LOAD/DEFLECTION - L/60	58.10	46.48	38.73	32.69	25.28	20.11	16.37
	LIVE LOAD/DEFLECTION - L/180	58.10	46.48	38.73	32.69	25.28	20.11	16.37
	LIVE LOAD/DEFLECTION - L/240	58.10	46.48	38.73	32.69	25.28	17.82	12.99

26 Gauge thickness								
Span Type	Load Type	Support Spacing						
		2 Ft.	2.5 Ft.	3 Ft.	3.5 Ft.	4 Ft.	4.5 Ft.	5 Ft.
1-span	**NEGATIVE WIND LOAD**	130.57	83.56	58.03	42.63	32.64	25.79	20.89
	LIVE LOAD/DEFLECTION - L/60	156.54	107.62	74.74	54.91	42.04	33.22	26.91
	LIVE LOAD/DEFLECTION - L/180	156.54	87.33	50.54	31.83	21.32	14.97	10.92
	LIVE LOAD/DEFLECTION - L/240	127.92	65.50	37.90	23.87	15.99	11.23	8.19
2-span	**NEGATIVE WIND LOAD**	156.29	102.57	72.25	53.55	41.24	32.71	26.57
	LIVE LOAD/DEFLECTION - L/60	124.77	81.13	56.84	41.99	32.26	25.55	20.73
	LIVE LOAD/DEFLECTION - L/180	124.77	81.13	56.84	41.99	32.26	25.55	20.73
	LIVE LOAD/DEFLECTION - L/240	124.77	81.13	56.84	41.99	32.26	25.55	20.73
3-span	**NEGATIVE WIND LOAD**	189.76	125.71	89.04	66.23	51.00	40.30	32.64
	LIVE LOAD/DEFLECTION - L/60	153.07	100.16	70.43	52.14	40.12	31.81	25.83
	LIVE LOAD/DEFLECTION - L/180	153.07	100.16	70.43	52.14	40.12	31.40	22.89
	LIVE LOAD/DEFLECTION - L/240	153.07	100.16	70.43	50.05	33.53	23.55	17.17
4-span	**NEGATIVE WIND LOAD**	178.91	118.14	83.52	62.04	47.85	38.00	30.89
	LIVE LOAD/DEFLECTION - L/60	143.80	93.89	65.94	48.78	37.51	29.73	24.14
	LIVE LOAD/DEFLECTION - L/180	143.80	93.89	65.94	48.78	37.51	29.73	24.14
	LIVE LOAD/DEFLECTION - L/240	143.80	93.89	65.94	48.78	35.72	25.09	18.29

Notes:

1. Strength calculations are based on the 2012 S100 AISI "North American Specification for the Design of Cold-formed Steel Structural Members".
2. Allowable loads are applicable for uniform loading and spans without overhangs.
3. LIVE LOAD/DEFLECTION capacities are for those loads that push the panel against its support. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and the strength-level load deflection limit shown.
4. Capacities for LIVE LOAD/DEFLECTION pressure loading are determined as the smaller of the LIVE LOAD/DEFLECTION - Strength and the required deflection limit values listed.
5. NEGATIVE WIND LOAD capacities are for those loads that pull the panel away the support. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
6. Panel pullover and screw pullout connection capacities need to be checked separately for the particular fasteners employed using tributary area-based connection loads.
7. Effective yield strength has been determined in accordance with section A2.3.3 of the 2012 AISI S100 specification.
8. The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
9. This material is subject to change without notice. Please contact MBCI for most current data.

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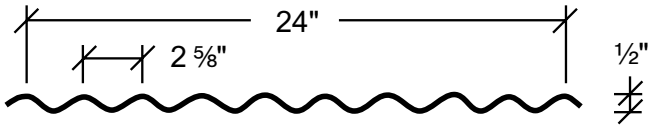
PRODUCT INFORMATION

CORRUGATED
24" Coverage



PANEL SECTION PROPERTIES								
			NEGATIVE BENDING			POSITIVE BENDING		
PANEL GAUGE	Fy (KSI)	WEIGHT (PSF)	Ixe (IN.4/FT.)	Sxe (IN.3/FT.)	Maxo (KIP-IN.)	Ixe (IN.4/FT.)	Sxe (IN.3/FT.)	Maxo (KIP-IN.)
29	60 *	0.60	0.0050	0.0195	0.7020	0.0050	0.0195	0.7020
26	60 *	0.79	0.0068	0.0264	0.9480	0.0068	0.0264	0.9480

* Panels are made from 80 ksi yield material. Flexural effective yield strengths vary by direction of bending. Shear and web crippling capacities have been determined using an effective yield strength of 60 ksi.

NOTES:
1. All calculations for the properties of Corrugated panels are calculated in accordance with the 2012 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members.
2. Ixe is for deflection determination.
3. Sxe is for bending.
4. Maxo is allowable bending moment.
5. All values are for one foot of panel width.

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PRODUCT INFORMATION

CORRUGATED
24" Coverage

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

29 Gauge (0.0133")								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		2.0	2.5	3.0	3.5	4.0	4.5	5.0
1-span	NEGATIVE WIND LOAD	117.03	74.90	52.01	38.21	29.26	20.62	15.03
	LIVE LOAD/DEFLECTION	117.03	74.90	52.01	38.21	29.26	20.62	15.03
2-span	NEGATIVE WIND LOAD	115.44	74.24	51.69	38.04	29.16	23.05	18.68
	LIVE LOAD/DEFLECTION	80.12	64.10	51.69	38.04	29.16	23.05	18.68
3-span	NEGATIVE WIND LOAD	143.45	92.45	64.45	47.46	36.39	28.78	23.33
	LIVE LOAD/DEFLECTION	91.05	72.84	60.70	47.46	36.39	28.78	23.33
4-span	NEGATIVE WIND LOAD	134.16	86.40	60.21	44.32	33.98	26.87	21.78
	LIVE LOAD/DEFLECTION	87.63	70.11	58.42	44.32	33.98	26.87	21.78

26 Gauge (0.0181")								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		2.0	2.5	3.0	3.5	4.0	4.5	5.0
1-span	NEGATIVE WIND LOAD	157.95	101.09	70.20	51.58	39.49	28.09	20.48
	LIVE LOAD/DEFLECTION	157.95	101.09	70.20	51.58	39.49	28.09	20.48
2-span	NEGATIVE WIND LOAD	156.66	100.56	69.94	51.44	39.41	31.15	25.24
	LIVE LOAD/DEFLECTION	156.66	100.56	69.94	51.44	39.41	31.15	25.24
3-span	NEGATIVE WIND LOAD	195.12	125.40	87.29	64.22	49.21	38.91	31.53
	LIVE LOAD/DEFLECTION	195.12	125.40	87.29	64.22	49.21	38.91	31.53
4-span	NEGATIVE WIND LOAD	182.34	117.14	81.52	59.96	45.95	36.32	29.43
	LIVE LOAD/DEFLECTION	182.34	117.14	81.52	59.96	45.95	36.32	29.43

Notes:

1. Strength calculations based on the 2012 AISI Standard "North American Specification for the Design of Cold-formed Steel Structural Members."
2. Allowable loads are applicable for uniform loading and spans without overhangs.
3. LIVE LOAD/DEFLECTION load capacities are for those loads that push the panel against its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and a deflection limit of L/180 under strength-level loads.
4. NEGATIVE WIND LOAD capacities are for those loads that pull the panel away from its supports. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
5. Panel pullover and Screw pullout capacity must be checked separately using the screws employed for each particular application when utilizing this load chart.
6. Effective yield strength has been determined in accordance with section A2.3.2 of the 2012 NAS specification.
7. The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
8. This material is subject to change without notice. Please contact MBCI for most current data.

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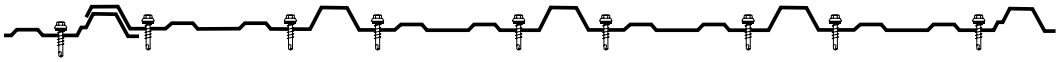
PRODUCT INFORMATION

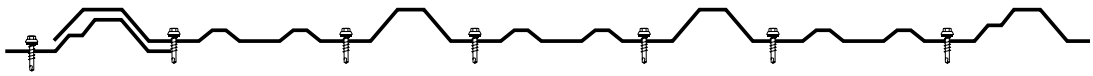
Panel Fastener Locations (Panel Ends)

Rain Guard®



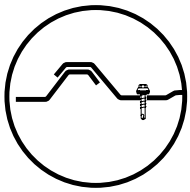
Perma-Clad®

Stormproof®



WeatherSafe®

Corrugated



APPLICATION →
PREVAILING WIND ←

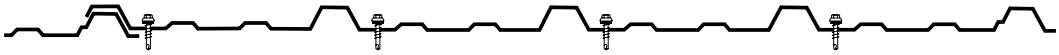
NOTE:

1. The above are typical fastener spacings. However they may not be appropriate for all applications. Consult a professional engineer for use on any specific application.

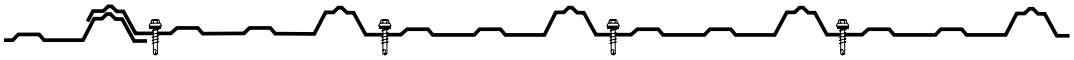
PRODUCT INFORMATION

Panel Fastener Locations (Interior)

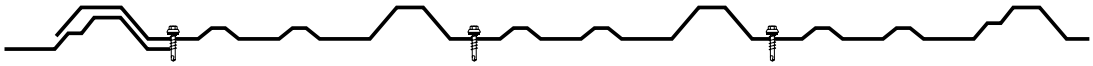
Rain Guard®



Perma-Clad®



Stormproof®



WeatherSafe®

Corrugated

NOTE:

1. The above are typical fastener spacings. However they may not be appropriate for all applications. Consult a professional engineer for use on any specific application.

NOTES

NOTES

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December, 2017 / Rev 00.01