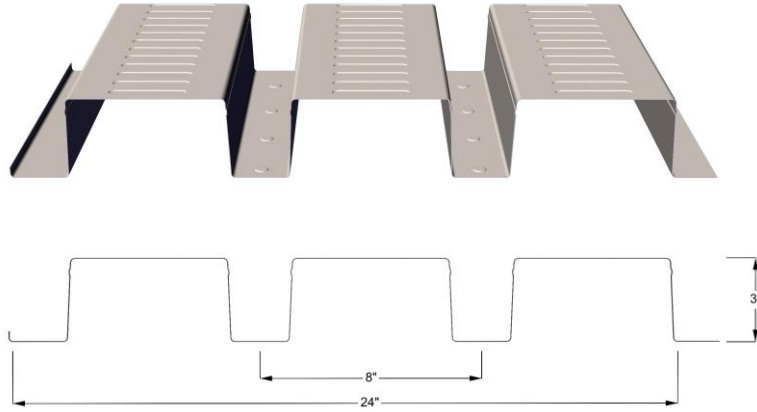


SM675FD-CL

TECHNICAL DATA SHEET



PRODUCT DESCRIPTION

Samson Metals SM675FD Products are cold-formed panels with a total coverage of 24" (610 mm). With a nominal depth of 3" (76 mm) and cell spacing of 8" (203 mm) centre-to-centre. These products are manufactured using galvanized coated sheet steel in accordance to the ASTM A653 Standard with the corresponding zinc coating in either Z275 (G90) or Z120 (G40).

TECHNICAL DESIGN STANDARDS

The physical properties and load tables presented in this document are based on the North American Specification for the Design of Cold-Formed structural Members (CSA-S136-16) and the Canadian Sheet Steel Building Institute (CSSBI) Guide 12M-18.

The CSSBI dictates best practice for steel deck that is utilized in the calculations contained in this document. The engineer of record is responsible to ensure their design follows the requirements outlined in the CSSBI Standard and the National Building Code of Canada (NBCC).

CAUTIONARY STATEMENT

The reader expressly understands that using steel products beyond or outside of their intended scope of use is inherently dangerous. The reader expressly understands and agrees that Samson Metals is not responsible for any damages or loss caused by the use of Samson Metals products outside of the guidelines and specifications contained in this document. The reader is not relying on any representations made by Samson Metals that are not explicitly contained in this document.

SM675FD-CL - 33 KSI (228 Mpa) - LSD

PHYSICAL PROPERTIES FOR NON-COMPOSITE & COMPOSITE APPLICATIONS

Base Steel Thickness		NON-COMPOSITE								COMPOSITE					
GAUGE	Thk	As	Ysb	Sm	Ss	Isd	Br Ext	Br Int	Wd	Slab Thk	Ic	d	Regress Coefficient	WOC	VOC
	(in)	(in ² / ft)	(in)	(in ³ / ft)	(in ³ / ft)	(in ⁴ / ft)	(lb/ ft)	(lb/ ft)	(PSF)	(in)	(in ⁴ / in)	(in)	K-Values	PSF	ft ³ / 100ft ²
22	0.030	0.6302	1.845	0.4603	0.4518	0.8879	548	1106	2.14	7.0	149.9	5.2	K1 = 4265 lb/in ²	58.7	40.4
										7.5	185.8	5.7	K2 = 414 lb/in	64.7	44.5
										8.0	227.1	6.2	K3 = 688 lb/in ³	70.8	48.7
										8.5	274.1	6.7	K4 = 0 lb/in ²	76.8	52.9
20	0.036	0.7546	1.868	0.5529	0.5573	1.0773	768	1538	2.57	7.0	157.6	5.2	K1 = 4265 lb/in ²	58.7	40.4
										7.5	195.4	5.7	K2 = 414 lb/in	64.7	44.5
										8.0	238.8	6.2	K3 = 688 lb/in ³	70.8	48.7
										8.5	288.1	6.7	K4 = 0 lb/in ²	76.8	52.9
18	0.048	1.0117	1.905	0.7438	0.7438	1.4424	1328	2624	3.44	7.0	172.5	5.2	K1 = 4265 lb/in ²	58.7	40.4
										7.5	213.9	5.7	K2 = 414 lb/in	64.7	44.5
										8.0	261.3	6.2	K3 = 688 lb/in ³	70.8	48.7
										8.5	315.1	6.7	K4 = 0 lb/in ²	76.8	52.9
16	0.060	1.2605	1.915	0.9225	0.9225	1.7946	1999	3917	4.29	7.0	185.6	5.2	K1 = 4265 lb/in ²	58.7	40.4
										7.5	230.3	5.2	K2 = 414 lb/in	64.7	44.5
										8.0	281.4	6.2	K3 = 688 lb/in ³	70.8	48.7
										8.5	339.3	6.7	K4 = 0 lb/in ²	76.8	52.9

PHYSICAL PROPERTIES TABLE - DEFINITIONS & NOTES:

- APPLIED CODE is LSD S136-16 (R2021).
- MINIMUM SPECIFIED YIELD STRESS Fy = 33 KSI (228 MPa).
- Thk: Base Metal Thickness used in Design
- As Area of Steel
- Ysb Steel Gravity Center from Bottom Flange of Steel (After Effectiveness Iteration)
- Sm Section Modulus at Mid Span, Top in Compression
- Ss Section Modulus at Support, Top in Compression
- Isd Deflection Inertia When Top is in Compression
- Br (Ext) Crippling at External Support with a minimum Supporting Flange width of 3"
- Br (Int) Crippling at Internal Support with a minimum Supporting Flange width of 1.5"
- Wd Decking Weight
- Slab Thk Concrete Slab Depth measured from the lowest member of the Deck
- Ic Inertia of the Composite Slab.
- d Distance between the Steel neutral axis to the top of the concrete level.
- Regress Coef, K1, K2, K3 and K4 values have been derived by physical product testing.
- WOC Weight of Concrete
- VOC Volume of Concrete

SM675FD-CL - 33 KSI (228 Mpa) - LSD

SPAN (ft)	SPECIFIED LOAD TABLES (PSF)															
	Concrete Slab Depth (in)															
	7.0				7.5				8.0				8.5			
	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060
SINGLE SPAN (1-EQUAL SPAN)																
7.0	501	566	701	831	549	620	768	911	597	675	835	991	645	729	903	1071
7.5	443	502	626	746	485	551	687	818	528	599	747	890	570	647	807	962
8.0	394	449	564	675	432	493	618	740	470	536	672	805	507	579	727	870
8.5	353	405	511	614	387	443	560	673	421	482	609	732	454	521	658	791
9.0	318	366	466	562	348	401	510	616	379	436	555	670	409	471	600	724
9.5	288	333	426	516	315	365	467	566	343	397	508	616	370	428	549	665
10.0	261	304	392	477	286	333	429	523	311	362	467	568	336	391	504	614
10.5	238	279	362	442	261	305	396	484	284	332	431	527	306	358	465	569
11.0	218	256	335	411	239	281	367	450	260	305	399	490	280	329	431	529
11.5	200	236	311	383	219	259	341	420	238	281	370	456	257	304	400	493
12.0	184	218	289	358	201	239	317	392	219	260	345	427	236	281	372	461
12.5	169	202	270	336	185	221	296	368	201	241	322	400	217	260	347	432
13.0	156	188	253	315	171	206	277	346	186	223	301	376	201	241	325	406
13.5	145	175	237	297	158	191	259	325	172	208	282	354	185	224	304	382
DOUBLE SPAN (2-EQUAL SPANS)																
7.0	501	566	701	831	549	620	768	911	597	675	835	991	645	729	903	1071
7.5	443	502	626	746	485	551	687	818	528	599	747	890	570	647	807	962
8.0	394	449	564	675	432	493	618	740	470	536	672	805	507	579	727	870
8.5	353	405	511	614	387	443	560	673	421	482	609	732	454	521	658	791
9.0	318	366	466	562	348	401	510	616	379	436	555	670	409	471	600	724
9.5	288	333	426	516	315	365	467	566	343	397	508	616	370	428	549	665
10.0	261	304	392	477	286	333	429	523	311	362	467	568	336	391	504	614
10.5	238	279	362	442	261	305	396	484	284	332	431	527	306	358	465	569
11.0	218	256	335	411	239	281	367	450	260	305	399	490	280	329	431	529
11.5	200	236	311	383	219	259	341	420	238	281	370	456	257	304	400	493
12.0	184	218	289	358	201	239	317	392	219	260	345	427	236	281	372	461
12.5	169	202	270	336	185	221	296	368	201	241	322	400	217	260	347	432
13.0	156	188	253	315	171	206	277	346	186	223	301	376	201	241	325	406
13.5	145	175	237	297	158	191	259	325	172	208	282	354	185	224	304	382
TRIPLE SPAN (3-EQUAL SPANS)																
7.0	501	566	701	831	549	620	768	911	597	675	835	991	645	729	903	1071
7.5	443	502	626	746	485	551	687	818	528	599	747	890	570	647	807	962
8.0	394	449	564	675	432	493	618	740	470	536	672	805	507	579	727	870
8.5	353	405	511	614	387	443	560	673	421	482	609	732	454	521	658	791
9.0	318	366	466	562	348	401	510	616	379	436	555	670	409	471	600	724
9.5	288	333	426	516	315	365	467	566	343	397	508	616	370	428	549	665
10.0	261	304	392	477	286	333	429	523	311	362	467	568	336	391	504	614
10.5	238	279	362	442	261	305	396	484	284	332	431	527	306	358	465	569
11.0	218	256	335	411	239	281	367	450	260	305	399	490	280	329	431	529
11.5	200	236	311	383	219	259	341	420	238	281	370	456	257	304	400	493
12.0	184	218	289	358	201	239	317	392	219	260	345	427	236	281	372	461
12.5	169	202	270	336	185	221	296	368	201	241	322	400	217	260	347	432
13.0	156	188	253	315	171	206	277	346	186	223	301	376	201	241	325	406
13.5	145	175	237	297	158	191	259	325	172	208	282	354	185	224	304	382

SM675FD-CL - 33 KSI (228 Mpa) - LSD

LOAD TABLE NOTES:

1. Hatched Areas, signifies that Shoring shall be done during Erection at mid-span.
2. Under Concrete Weight and Erection Loads (As considered) the deflection is limited to $L/240$.
3. Concrete type is considered normal (145 PCF). Concrete minimum compressive Stress is 2.9 KSI.
4. Heavy Concentrated Loads, moving loads and vibratory loads are not recommended on a composite floor system without additional negative and transverse reinforcing.
5. The load table has not been limited, however, loads above 200 psf or in structures, or portions thereof, where loads are maintained for lengthy periods, such as warehouses, computer rooms, libraries or other conditions, where the effect of creep must be considered, Contact Samson Metals LTD.
6. The loads indicated in the load tables are, the weight of steel deck, and wet concrete and 20.9 psf uniformly distributed construction load or a 137 lb/ ft transverse live load have been included within the load tables.
7. Shoring shall be installed to divide span in respect of the allowable shoring limits as indicated in the table.
8. Grade of steel used to calculate the span capacities in the tables has a yield strength of 33 KSI (228 MPa) in conformance to ASTM A653 standard.
9. For engineered Stamped Load Tables, please contact Samson Metals Ltd.

FOR ADDITIONAL INFORMATION & RESOURCES, PLEASE CONTACT SAMSON METALS LTD.

By Phone: 1 (855) 881-1495

Website: samsonmetals.com

