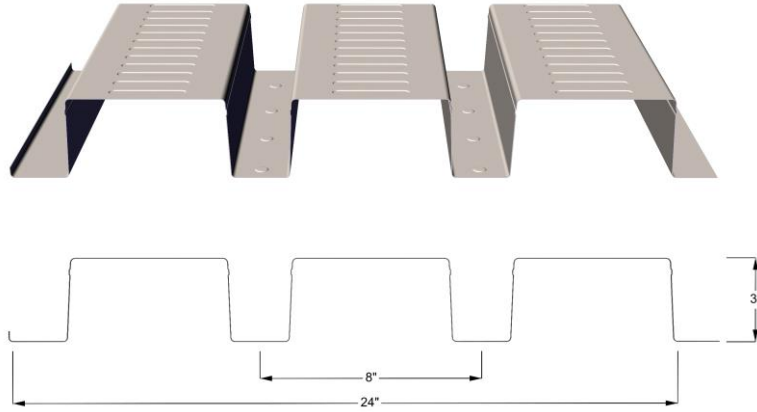


SM675FD-CL

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 - 40 KSI (275 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	1.634	0.4336	0.4223	0.7298	659	1333	2.14	7.0	157.1	5.4	K1 = 4265 lb/in ²	58.7	40.4
										7.5	193.8	5.9	K2 = 414 lb/in	64.7	44.5
										8.0	235.9	6.4	K3 = 688 lb/in ³	70.8	48.7
										8.5	283.7	6.9	K4 = 0 lb/in ²	76.8	52.9
20	0.036	0.7546	1.655	0.5219	0.5234	0.8730	925	1852	2.57	7.0	166.0	5.4	K1 = 4265 lb/in ²	58.7	40.4
										7.5	204.8	5.9	K2 = 414 lb/in	64.7	44.5
										8.0	249.1	6.4	K3 = 688 lb/in ³	70.8	48.7
										8.5	299.3	6.9	K4 = 0 lb/in ²	76.8	52.9
18	0.048	1.0117	1.654	0.6960	0.7100	1.1682	1599	3161	3.44	7.0	183.2	5.4	K1 = 4265 lb/in ²	58.7	40.4
										7.5	225.9	5.9	K2 = 414 lb/in	64.7	44.5
										8.0	274.6	6.4	K3 = 688 lb/in ³	70.8	48.7
										8.5	329.6	6.9	K4 = 0 lb/in ²	76.8	52.9
16	0.060	1.2605	1.654	0.8628	0.8803	1.4528	2406	4719	4.29	7.0	198.5	5.4	K1 = 4265 lb/in ²	58.7	40.4
										7.5	244.7	5.4	K2 = 414 lb/in	64.7	44.5
										8.0	297.3	6.4	K3 = 688 lb/in ³	70.8	48.7
										8.5	356.7	6.9	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 = 40 KSI (275MPa).

- 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

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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	530	598	740	877	578	653	807	957	626	707	875	1037	674	762	942	1117
7.5	469	532	662	788	511	580	722	859	554	628	782	931	596	677	843	1003
8.0	418	476	596	713	456	519	650	778	493	562	705	843	531	605	759	908
8.5	375	429	541	649	408	468	590	708	442	506	639	767	476	545	688	826
9.0	338	388	493	594	368	423	538	648	399	459	582	702	429	494	627	756
9.5	306	354	452	546	334	385	492	596	361	417	533	646	388	449	574	695
10.0	278	323	415	505	303	352	453	550	328	381	490	596	353	410	528	642
10.5	254	296	384	468	277	323	418	510	300	350	453	553	322	376	487	595
11.0	233	273	355	435	254	297	387	475	274	322	419	514	295	346	451	553
11.5	214	252	330	406	233	274	360	443	252	297	390	480	271	319	419	516
12.0	197	233	308	380	214	254	335	414	232	275	363	449	249	295	391	483
12.5	182	216	288	357	198	235	313	389	214	255	339	421	230	274	365	453
13.0	168	201	269	335	183	219	293	365	198	237	317	395	212	254	341	426
13.5	156	187	253	316	169	204	275	344	183	220	298	372	196	237	320	401
DOUBLE SPAN (2-EQUAL SPANS)																
7.0	530	598	740	877	578	653	807	957	626	707	875	1037	674	762	942	1117
7.5	469	532	662	788	511	580	722	859	554	628	782	931	596	677	843	1003
8.0	418	476	596	713	456	519	650	778	493	562	705	843	531	605	759	908
8.5	375	429	541	649	408	468	590	708	442	506	639	767	476	545	688	826
9.0	338	388	493	594	368	423	538	648	399	459	582	702	429	494	627	756
9.5	306	354	452	546	334	385	492	596	361	417	533	646	388	449	574	695
10.0	278	323	415	505	303	352	453	550	328	381	490	596	353	410	528	642
10.5	254	296	384	468	277	323	418	510	300	350	453	553	322	376	487	595
11.0	233	273	355	435	254	297	387	475	274	322	419	514	295	346	451	553
11.5	214	252	330	406	233	274	360	443	252	297	390	480	271	319	419	516
12.0	197	233	308	380	214	254	335	414	232	275	363	449	249	295	391	483
12.5	182	216	288	357	198	235	313	389	214	255	339	421	230	274	365	453
13.0	168	201	269	335	183	219	293	365	198	237	317	395	212	254	341	426
13.5	156	187	253	316	169	204	275	344	183	220	298	372	196	237	320	401
TRIPLE SPAN (3-EQUAL SPANS)																
7.0	530	598	740	877	578	653	807	957	626	707	875	1037	674	762	942	1117
7.5	469	532	662	788	511	580	722	859	554	628	782	931	596	677	843	1003
8.0	418	476	596	713	456	519	650	778	493	562	705	843	531	605	759	908
8.5	375	429	541	649	408	468	590	708	442	506	639	767	476	545	688	826
9.0	338	388	493	594	368	423	538	648	399	459	582	702	429	494	627	756
9.5	306	354	452	546	334	385	492	596	361	417	533	646	388	449	574	695
10.0	278	323	415	505	303	352	453	550	328	381	490	596	353	410	528	642
10.5	254	296	384	468	277	323	418	510	300	350	453	553	322	376	487	595
11.0	233	273	355	435	254	297	387	475	274	322	419	514	295	346	451	553
11.5	214	252	330	406	233	274	360	443	252	297	390	480	271	319	419	516
12.0	197	233	308	380	214	254	335	414	232	275	363	449	249	295	391	483
12.5	182	216	288	357	198	235	313	389	214	255	339	421	230	274	365	453
13.0	168	201	269	335	183	219	293	365	198	237	317	395	212	254	341	426
13.5	156	187	253	316	169	204	275	344	183	220	298	372	196	237	320	401

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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 40 KSI (275 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.

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