



COLD FORMED C-SECTIONS

C1421.5

3.25 kg/m

Material: ASTM A653, Grade:50, EN-10147, S350, GD Z275, G90(Fy=350 N/mm2)

UNIFORMLY DISTRIBUTED LOADS(KN/m²), DUE TO DL+LL

**Total Uplift Loads,
DL+W/L, KN**

Span L, m	Total Load KN	C-Purlin Center/Center Spacing, m												Allw. Defl. L/180, cm	No. of Anti-Sag Rods		
		1.0	1.2	1.4	1.5	1.6	1.8	2.0	2.2	2.4	2.5	2.8	3.0		0	1	2
3.0	14.07	4.69	3.91	3.35	3.13	2.93	2.61	2.34	2.13	1.95	1.88	1.67	1.56	1.67	9.36	-	-
3.5	12.06	3.45	2.87	2.46	2.30	2.15	1.91	1.72	1.57	1.44	1.38	1.23	1.15	1.94	8.02	-	-
4.0	10.55	2.64	2.20	1.88	1.76	1.65	1.47	1.32	1.20	1.10	1.06	0.94	0.88	2.22	7.02	-	-
4.5	9.38	2.08	1.74	1.49	1.39	1.30	1.16	1.04	0.95	0.87	0.83	0.74	0.69	2.50	6.24	-	-
5.0	8.44	1.69	1.41	1.21	1.13	1.06	0.94	0.84	0.77	0.70	0.68	0.60	0.56	2.78	5.61	-	-
5.5	7.67	1.40	1.16	1.00	0.93	0.87	0.78	0.70	0.63	0.58	0.56	0.50	0.47	3.06	5.10	-	-
6.0	7.03	1.17	0.98	0.84	0.78	0.73	0.65	0.59	0.53	0.49	0.47	0.42	0.39	3.33	-	4.68	-
6.5	6.49	1.00	0.83	0.71	0.67	0.62	0.55	0.50	0.45	0.42	0.40	0.36	0.33	3.61	-	4.32	-
7.0	6.03	0.86	0.72	0.62	0.57	0.54	0.48	0.43	0.39	0.36	0.34	0.31	0.29	3.89	-	4.01	-
7.5	5.63	0.75	0.63	0.54	0.50	0.47	0.42	0.38	0.34	0.31	0.30	0.27	0.25	4.17	-	3.74	-
8.0	5.28	0.66	0.55	0.47	0.44	0.41	0.37	0.33	0.30	0.27	0.26	0.24	0.22	4.44	-	3.51	-

C1422.0

4.30 kg/m

Material: ASTM A653, Grade:50, EN-10147, S350, GD Z275, G90(Fy=350 N/mm2)

UNIFORMLY DISTRIBUTED LOADS(KN/M²), DUE TO DL+LL

**Total Uplift Loads,
DL+W/L, KN**

Span L m	Total Load KN	C-Purlin Center/Center Spacing, m												Allw. Defl. L/180, cm	No. of Anti-Sag Rods		
		1.0	1.2	1.4	1.5	1.6	1.8	2.0	2.2	2.4	2.5	2.8	3.0		0	1	2
3.0	20.94	6.98	5.82	4.99	4.65	4.36	3.88	3.49	3.17	2.91	2.79	2.49	2.33	1.67	13.92	-	-
3.5	17.95	5.13	4.27	3.66	3.42	3.20	2.85	2.56	2.33	2.14	2.05	1.83	1.71	1.94	11.93	-	-
4.0	15.70	3.93	3.27	2.80	2.62	2.45	2.18	1.96	1.78	1.64	1.57	1.40	1.31	2.22	10.44	-	-
4.5	13.96	3.10	2.58	2.22	2.07	1.94	1.72	1.55	1.41	1.29	1.24	1.11	1.03	2.50	9.28	-	-
5.0	12.56	2.51	2.09	1.79	1.67	1.57	1.40	1.26	1.14	1.05	1.00	0.90	0.84	2.78	8.35	-	-
5.5	11.42	2.08	1.73	1.48	1.38	1.30	1.15	1.04	0.94	0.87	0.83	0.74	0.69	3.06	7.59	-	-
6.0	10.47	1.74	1.45	1.25	1.16	1.09	0.97	0.87	0.79	0.73	0.70	0.62	0.58	3.33	-	6.96	-
6.5	9.66	1.49	1.24	1.06	0.99	0.93	0.83	0.74	0.68	0.62	0.59	0.53	0.50	3.61	-	6.43	-
7.0	8.97	1.28	1.07	0.92	0.85	0.80	0.71	0.64	0.58	0.53	0.51	0.46	0.43	3.89	-	5.97	-
7.5	8.37	1.12	0.93	0.80	0.74	0.70	0.62	0.56	0.51	0.47	0.45	0.40	0.37	4.17	-	5.57	-
8.0	7.85	0.98	0.82	0.70	0.65	0.61	0.55	0.49	0.45	0.41	0.39	0.35	0.33	4.44	-	5.22	-

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Notes: 1. Design of C-Purlins is based on AISI-1999 (LRFD) or equi BS5950 P5.

15.03.10

2. These capacities are applicable for roof slopes of upto 3:10 only.

3. Capacities for uplift loads are increased by 33-1/3% as per AISI.

4. Sag rods shall be located at equal distances. 5. Check deflection as per actual loads.