



COLD FORMED C-SECTIONS

C3422.5 10.72 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+WL, 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
5.0	58.41	11.68	9.73	8.34	7.79	7.30	6.49	5.84	5.31	4.87	4.67	4.17	3.89	2.78	38.84	-	-
5.5	53.10	9.65	8.05	6.90	6.44	6.03	5.36	4.83	4.39	4.02	3.86	3.45	3.22	3.06	35.31	-	-
6.0	48.67	8.11	6.76	5.79	5.41	5.07	4.51	4.06	3.69	3.38	3.24	2.90	2.70	3.33	-	32.37	-
6.5	44.93	6.91	5.76	4.94	4.61	4.32	3.84	3.46	3.14	2.88	2.76	2.47	2.30	3.61	-	29.88	-
7.0	41.72	5.96	4.97	4.26	3.97	3.73	3.31	2.98	2.71	2.48	2.38	2.13	1.99	3.89	-	27.74	-
7.5	38.94	5.19	4.33	3.71	3.46	3.24	2.88	2.60	2.36	2.16	2.08	1.85	1.73	4.17	-	25.89	-
8.0	36.51	4.56	3.80	3.26	3.04	2.85	2.54	2.28	2.07	1.90	1.83	1.63	1.52	4.44	-	24.28	-
8.5	34.36	4.04	3.37	2.89	2.69	2.53	2.25	2.02	1.84	1.68	1.62	1.44	1.35	4.72	-	-	22.85
9.0	32.45	3.61	3.00	2.58	2.40	2.25	2.00	1.80	1.64	1.50	1.44	1.29	1.20	5.00	-	-	21.58
9.5	30.74	3.24	2.70	2.31	2.16	2.02	1.80	1.62	1.47	1.35	1.29	1.16	1.08	5.28	-	-	20.44
10.0	29.20	2.92	2.43	2.09	1.95	1.83	1.62	1.46	1.33	1.22	1.17	1.04	0.97	5.56	-	-	19.42

C3423.0 12.81 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+WL, 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
5.0	73.47	14.69	12.24	10.50	9.80	9.18	8.16	7.35	6.68	6.12	5.88	5.25	4.90	2.78	48.86	-	-
5.5	66.79	12.14	10.12	8.67	8.10	7.59	6.75	6.07	5.52	5.06	4.86	4.34	4.05	3.06	44.41	-	-
6.0	61.22	10.20	8.50	7.29	6.80	6.38	5.67	5.10	4.64	4.25	4.08	3.64	3.40	3.33	-	40.71	-
6.5	56.51	8.69	7.25	6.21	5.80	5.43	4.83	4.35	3.95	3.62	3.48	3.11	2.90	3.61	-	37.58	-
7.0	52.48	7.50	6.25	5.35	5.00	4.69	4.16	3.75	3.41	3.12	3.00	2.68	2.50	3.89	-	34.90	-
7.5	48.98	6.53	5.44	4.66	4.35	4.08	3.63	3.27	2.97	2.72	2.61	2.33	2.18	4.17	-	32.57	-
8.0	45.92	5.74	4.78	4.10	3.83	3.59	3.19	2.87	2.61	2.39	2.30	2.05	1.91	4.44	-	30.53	-
8.5	43.22	5.08	4.24	3.63	3.39	3.18	2.82	2.54	2.31	2.12	2.03	1.82	1.69	4.72	-	-	28.74
9.0	40.82	4.54	3.78	3.24	3.02	2.83	2.52	2.27	2.06	1.89	1.81	1.62	1.51	5.00	-	-	27.14
9.5	38.67	4.07	3.39	2.91	2.71	2.54	2.26	2.04	1.85	1.70	1.63	1.45	1.36	5.28	-	-	25.71
10.0	36.73	3.67	3.06	2.62	2.45	2.30	2.04	1.84	1.67	1.53	1.47	1.31	1.22	5.56	-	-	24.43

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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.