



COLD FORMED C-SECTIONS

C2021.5 4.29 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
4.0	17.32	4.33	3.61	3.09	2.89	2.71	2.41	2.16	1.97	1.80	1.73	1.55	1.44	2.22	11.52	-	-
4.5	15.39	3.42	2.85	2.44	2.28	2.14	1.90	1.71	1.55	1.43	1.37	1.22	1.14	2.50	10.24	-	-
5.0	13.85	2.77	2.31	1.98	1.85	1.73	1.54	1.39	1.26	1.15	1.11	0.99	0.92	2.78	9.21	-	-
5.5	12.59	2.29	1.91	1.64	1.53	1.43	1.27	1.14	1.04	0.95	0.92	0.82	0.76	3.06	8.38	-	-
6.0	11.55	1.92	1.60	1.37	1.28	1.20	1.07	0.96	0.87	0.80	0.77	0.69	0.64	3.33	-	7.68	-
6.5	10.66	1.64	1.37	1.17	1.09	1.02	0.91	0.82	0.75	0.68	0.66	0.59	0.55	3.61	-	7.09	-
7.0	9.90	1.41	1.18	1.01	0.94	0.88	0.79	0.71	0.64	0.59	0.57	0.50	0.47	3.89	-	6.58	-
7.5	9.24	1.23	1.03	0.88	0.82	0.77	0.68	0.62	0.56	0.51	0.49	0.44	0.41	4.17	-	6.14	-
8.0	8.66	1.08	0.90	0.77	0.72	0.68	0.60	0.54	0.49	0.45	0.43	0.39	0.36	4.44	-	5.76	-
8.5	8.15	0.96	0.80	0.68	0.64	0.60	0.53	0.48	0.44	0.40	0.38	0.34	0.32	4.72	-	-	5.42
9.0	7.70	0.86	0.71	0.61	0.57	0.53	0.48	0.43	0.39	0.36	0.34	0.31	0.29	5.00	-	-	5.12

C2022.0 5.68 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
4.0	24.17	6.04	5.04	4.32	4.03	3.78	3.36	3.02	2.75	2.52	2.42	2.16	2.01	2.22	16.08	-	-
4.5	21.49	4.78	3.98	3.41	3.18	2.98	2.65	2.39	2.17	1.99	1.91	1.71	1.59	2.50	14.29	-	-
5.0	19.34	3.87	3.22	2.76	2.58	2.42	2.15	1.93	1.76	1.61	1.55	1.38	1.29	2.78	12.86	-	-
5.5	17.58	3.20	2.66	2.28	2.13	2.00	1.78	1.60	1.45	1.33	1.28	1.14	1.07	3.06	11.69	-	-
6.0	16.12	2.69	2.24	1.92	1.79	1.68	1.49	1.34	1.22	1.12	1.07	0.96	0.90	3.33	-	10.72	-
6.5	14.88	2.29	1.91	1.63	1.53	1.43	1.27	1.14	1.04	0.95	0.92	0.82	0.76	3.61	-	9.89	-
7.0	13.81	1.97	1.64	1.41	1.32	1.23	1.10	0.99	0.90	0.82	0.79	0.70	0.66	3.89	-	9.19	-
7.5	12.89	1.72	1.43	1.23	1.15	1.07	0.96	0.86	0.78	0.72	0.69	0.61	0.57	4.17	-	8.57	-
8.0	12.09	1.51	1.26	1.08	1.01	0.94	0.84	0.76	0.69	0.63	0.60	0.54	0.50	4.44	-	8.04	-
8.5	11.38	1.34	1.12	0.96	0.89	0.84	0.74	0.67	0.61	0.56	0.54	0.48	0.45	4.72	-	-	7.57
9.0	10.74	1.19	0.99	0.85	0.80	0.75	0.66	0.60	0.54	0.50	0.48	0.43	0.40	5.00	-	-	7.14

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

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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.