



## COLD FORMED C-SECTIONS

**C2321.5**      4.64 kg/m      **Material: ASTM A653, Grade:50, EN-10147, S350, GD Z275, G90(Fy=350 N/mm2)**

### UNIFORMLY DISTRIBUTED LOADS(KN/m<sup>2</sup>), 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	19.70	4.92	4.10	3.52	3.28	3.08	2.74	2.46	2.24	2.05	1.97	1.76	1.64	2.22	13.10	-	-
4.5	17.51	3.89	3.24	2.78	2.59	2.43	2.16	1.95	1.77	1.62	1.56	1.39	1.30	2.50	11.64	-	-
5.0	15.76	3.15	2.63	2.25	2.10	1.97	1.75	1.58	1.43	1.31	1.26	1.13	1.05	2.78	10.48	-	-
5.5	14.33	2.60	2.17	1.86	1.74	1.63	1.45	1.30	1.18	1.09	1.04	0.93	0.87	3.06	9.53	-	-
6.0	13.13	2.19	1.82	1.56	1.46	1.37	1.22	1.09	0.99	0.91	0.88	0.78	0.73	3.33	-	8.73	-
6.5	12.12	1.86	1.55	1.33	1.24	1.17	1.04	0.93	0.85	0.78	0.75	0.67	0.62	3.61	-	8.06	-
7.0	11.26	1.61	1.34	1.15	1.07	1.01	0.89	0.80	0.73	0.67	0.64	0.57	0.54	3.89	-	7.49	-
7.5	10.51	1.40	1.17	1.00	0.93	0.88	0.78	0.70	0.64	0.58	0.56	0.50	0.47	4.17	-	6.99	-
8.0	9.85	1.23	1.03	0.88	0.82	0.77	0.68	0.62	0.56	0.51	0.49	0.44	0.41	4.44	-	6.55	-
8.5	9.27	1.09	0.91	0.78	0.73	0.68	0.61	0.55	0.50	0.45	0.44	0.39	0.36	4.72	-	-	6.16
9.0	8.76	0.97	0.81	0.69	0.65	0.61	0.54	0.49	0.44	0.41	0.39	0.35	0.32	5.00	-	-	5.82

**C2322.0**      6.15 kg/m      **Material: ASTM A653, Grade:50, EN-10147, S350, GD Z275, G90(Fy=350 N/mm2)**

### UNIFORMLY DISTRIBUTED LOADS(KN/M<sup>2</sup>), 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	29.44	7.36	6.13	5.26	4.91	4.60	4.09	3.68	3.35	3.07	2.94	2.63	2.45	2.22	19.58	-	-
4.5	26.17	5.82	4.85	4.15	3.88	3.64	3.23	2.91	2.64	2.42	2.33	2.08	1.94	2.50	17.40	-	-
5.0	23.56	4.71	3.93	3.37	3.14	2.94	2.62	2.36	2.14	1.96	1.88	1.68	1.57	2.78	15.66	-	-
5.5	21.41	3.89	3.24	2.78	2.60	2.43	2.16	1.95	1.77	1.62	1.56	1.39	1.30	3.06	14.24	-	-
6.0	19.63	3.27	2.73	2.34	2.18	2.04	1.82	1.64	1.49	1.36	1.31	1.17	1.09	3.33	-	13.05	-
6.5	18.12	2.79	2.32	1.99	1.86	1.74	1.55	1.39	1.27	1.16	1.12	1.00	0.93	3.61	-	12.05	-
7.0	16.83	2.40	2.00	1.72	1.60	1.50	1.34	1.20	1.09	1.00	0.96	0.86	0.80	3.89	-	11.19	-
7.5	15.70	2.09	1.74	1.50	1.40	1.31	1.16	1.05	0.95	0.87	0.84	0.75	0.70	4.17	-	10.44	-
8.0	14.72	1.84	1.53	1.31	1.23	1.15	1.02	0.92	0.84	0.77	0.74	0.66	0.61	4.44	-	9.79	-
8.5	13.86	1.63	1.36	1.16	1.09	1.02	0.91	0.82	0.74	0.68	0.65	0.58	0.54	4.72	-	-	9.21
9.0	13.09	1.45	1.21	1.04	0.97	0.91	0.81	0.73	0.66	0.61	0.58	0.52	0.48	5.00	-	-	8.70

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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.