



Baghlaf Al Zafer Metal Industries

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BAZ-45/150 Profiled Steel Sheeting (GI) - Properties & Load Tables

* Material: ASTM A653 Grade: 50 ($F_y=35.0 \text{ KN/cm}^2$).

* Sheets available in Mill finish and Colour coated (GI).

* Paint applied is Polyester coated 25 to 30 microns on the exposed surface and 5 to 7 microns epoxy on inner surface.

* Colours available as per BAZ RAL Colour chart (subject to the availability).

Section Properties (per meter of coverage width)											
Thickness	Weight	Area	Top in Compression				Bottom in Compression				Shear
mm	Kg/m ²	cm ²	Ix cm ⁴	Sx Topcm ³	Sx Bottomcm ³	Ma KN-m	Ix cm ⁴	Sx Topcm ³	Sx Bottomcm ³	Ma KN-m	Va KN
0.50	5.31	6.77	18.58	7.40	9.20	2.46	18.85	8.10	8.56	2.69	23.72
0.60	6.37	8.13	22.97	9.28	11.13	3.09	23.17	9.78	10.69	3.25	41.03
0.70	7.43	9.48	27.41	11.23	13.04	3.73	27.51	11.46	12.84	3.81	60.06
0.80	8.50	10.84	31.74	13.10	14.92	4.13	31.70	13.10	14.89	4.13	74.12
0.90	9.56	12.19	35.58	14.67	16.69	4.62	35.58	14.67	16.69	4.62	83.18
1.00	10.62	13.54	39.38	16.22	18.44	5.11	39.38	16.22	18.44	5.11	92.19

Allowable Uniform Load Capacities (KN/m ²)											
Thickness	No. of Spans	Load	Span in Meters								
mm	No's	Case	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
0.50	upto 2 spans	D + L	16.12	8.26	4.78	3.01	2.02	1.42	1.03	0.78	0.60
		Uplift	21.54	12.56	7.27	4.58	3.07	2.15	1.57	1.18	0.91
	3 or more spans	D + L	24.59	15.58	9.01	5.68	3.80	2.67	1.95	1.46	1.13
		Uplift	26.92	17.23	11.97	8.64	5.79	4.06	2.96	2.23	1.71
0.60	upto 2 spans	D + L	19.93	10.20	5.91	3.72	2.49	1.75	1.28	0.96	0.74
		Uplift	26.02	15.45	8.94	5.63	3.77	2.65	1.93	1.45	1.12
	3 or more spans	D + L	30.87	19.25	11.14	7.02	4.70	3.30	2.41	1.81	1.39
		Uplift	32.52	20.81	14.45	10.62	7.12	5.00	3.64	2.74	2.11
0.70	upto 2 spans	D + L	23.79	12.18	7.05	4.44	2.97	2.09	1.52	1.14	0.88
		Uplift	30.47	18.34	10.61	6.68	4.48	3.14	2.29	1.72	1.33
	3 or more spans	D + L	37.33	22.98	13.30	8.38	5.61	3.94	2.87	2.16	1.66
		Uplift	38.09	24.38	16.93	12.44	8.45	5.93	4.32	3.25	2.50
0.80	upto 2 spans	D + L	27.55	14.10	8.16	5.14	3.44	2.42	1.76	1.32	1.02
		Uplift	33.00	21.12	12.23	7.70	5.16	3.62	2.64	1.98	1.53
	3 or more spans	D + L	41.28	26.42	15.40	9.70	6.50	4.56	3.33	2.50	1.93
		Uplift	41.26	26.40	18.34	13.47	9.73	6.84	4.98	3.74	2.88
0.90	upto 2 spans	D + L	30.87	15.81	9.15	5.76	3.86	2.71	1.98	1.48	1.14
		Uplift	36.97	23.66	13.72	8.64	5.79	4.07	2.96	2.23	1.72
	3 or more spans	D + L	46.21	29.58	17.26	10.87	7.28	5.11	3.73	2.80	2.16
		Uplift	46.21	29.58	20.54	15.09	10.92	7.67	5.59	4.20	3.24
1.00	upto 2 spans	D + L	34.17	17.50	10.13	6.38	4.27	3.00	2.19	1.64	1.27
		Uplift	40.88	26.16	15.19	9.56	6.41	4.50	3.28	2.46	1.90
	3 or more spans	D + L	51.10	32.70	19.10	12.03	8.06	5.66	4.13	3.10	2.39
		Uplift	51.10	32.70	22.71	16.69	12.09	8.49	6.19	4.65	3.58

Notes:

1. Design of Sheeting is based on equations of AISI-2001 (ASD-Allowable stress design).
2. D + L = Dead + Live Load (Deflection Limitation: Span / 180)
3. Wind Uplift (Deflection Limitation: Span / 120)