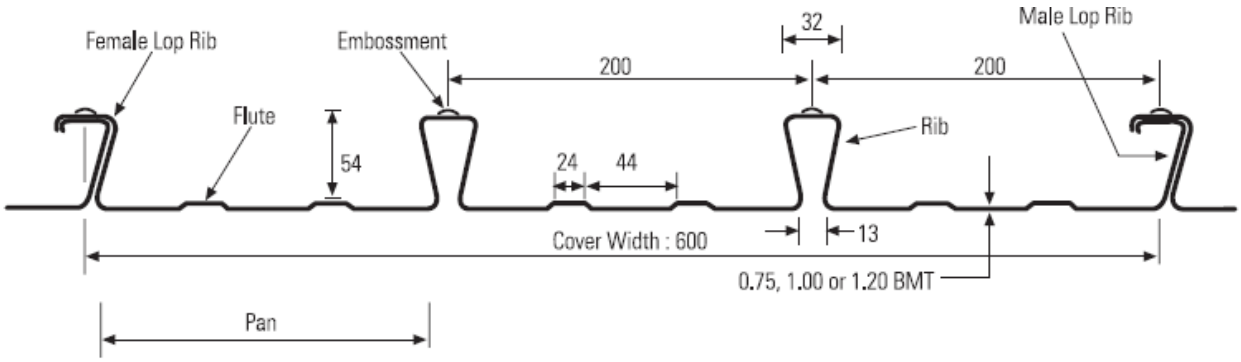
Profile:



1. Limit State Load capacity for Bondek II is provided for 1.0 BMT and 1.2 BMT.
2. Tests were carried out with the conditions below:
   a. Single, double and three spans.
   b. With and without shear studs welded through pans.
   c. Different support width.
3. The capacity tables are based on testing carried out at Lysaght's NATA registered testing laboratory by using air pressure rig and cylinder line load rig.
4. The following Code and Standards were referred:
   a. Bondek Bare Sheet Performance for the Market City Project – Tower Stage: BHPR/ENG/R/93/114/PS641U – March 1993
   b. Technical Note 116 – Design of profiled sheeting as permanent formwork
   c. BS5950: Part 4: 1994 Structural use of steel work in building Part 4. Code of practice for design of composite slabs with profiled steel sheeting

Maximum slab spans, mm — **Single span L/180**

Slab depth D (mm)	0.75 mm BMT BONDEK®II			1.00 mm BMT BONDEK®II			1.20 mm BMT BONDEK®II		
	No of props per span			No of props per span			No of props per span		
	0	1	2	0	1	2	0	1	2
110	2300	4450	6700	2550	5550	8350	2700	6350	9550
120	2250	4250	6400	2450	5350	8000	2600	6100	9150
130	2200	4100	6150	2400	5150	7700	2550	5850	8800
140	2150	3900	5900	2350	4950	7450	2500	5650	8450
150	2100	3800	5700	2300	4800	7200	2450	5450	8250
160	2050	3650	5500	2250	4600	6950	2400	5250	7900
170	2000	3500	5300	2200	4500	6750	2350	5100	7650
180	1950	3400	5100	2150	4350	6550	2300	4950	7450
190	1900	3300	4950	2100	4250	6350	2250	4800	7200
200	1850	3200	4800	2100	4100	6200	2200	4650	7000
210	1800	3100	4700	2050	4000	6000	2150	4550	6850
220	1750	3050	4550	2000	3900	5850	2150	4450	6650
230	1750	2950	4450	1950	3800	5750	2100	4350	6500
240	1700	2950	4350	1950	3750	5600	2100	4250	6350
250	1650	2800	4250	1900	3650	5500	2050	4150	6200

Maximum slab spans, mm — **Single span L/130**

Slab depth D (mm)	0.75 mm BMT BONDEK®II			1.00 mm BMT BONDEK®II			1.20 mm BMT BONDEK®II		
	No of props per span			No of props per span			No of props per span		
	0	1	2	0	1	2	0	1	2
110	2450	4400	6600	2700	5450	8150	2850	6200	9200
120	2400	4200	6300	2650	5250	7850	2800	5950	8900
130	2350	4050	6050	2600	5050	7550	2750	5750	8550
140	2300	3900	5800	2550	4850	7300	2700	5550	8250
150	2250	3750	5600	2500	4700	7050	2650	5350	8000
160	2200	3600	5400	2450	4550	6850	2600	5200	7750
170	2150	3500	5250	2400	4450	6650	2550	5050	7500
180	2100	3400	5100	2350	4300	6450	2500	4900	7300
190	2100	3300	4950	2300	4200	6300	2450	4750	7100
200	2050	3200	4800	2250	4100	6100	2400	4600	6900
210	2000	3100	4650	2250	4000	5950	2350	4500	6750
220	1950	3000	4550	2200	3900	5800	2350	4400	6600
230	1950	2950	4400	2200	3800	5700	2300	4300	6450
240	1900	2850	4300	2150	3700	5550	2300	4200	6300
250	1900	2800	4200	2100	3600	5450	2250	4100	6150

Maximum slab spans, mm — **Double span L/180**

Slab depth D (mm)	0.75 mm BMT BONDEK®II			1.00 mm BMT BONDEK®II			1.20 mm BMT BONDEK®II		
	No of props per span			No of props per span			No of props per span		
	0	1	2	0	1	2	0	1	2
110	2900	4450	6700	3600	5550	8350	3750	6350	9550
120	2850	4250	6400	3500	5350	8000	3700	6100	9150
130	2750	4100	6150	3400	5150	7700	3600	5850	8800
140	2700	3900	5900	3300	4950	7450	3500	5650	8450
150	2650	3800	5700	3250	4800	7200	3450	5450	8200
160	2550	3650	5500	3200	4600	6950	3350	5250	7900
170	2500	3500	5300	3100	4500	6750	3300	5100	7650
180	2450	3400	5100	3050	4350	6550	3250	4950	7450
190	2400	3300	4950	3000	4250	6350	3200	4800	7200
200	2350	3200	4800	2950	4100	6200	3150	4650	7000
210	2300	3100	4700	2900	4000	6000	3100	4550	6850
220	2300	3050	4550	2850	3900	5850	3050	4450	6650
230	2250	2950	4450	2800	3800	5750	3000	4350	6500
240	2200	2900	4350	2750	3750	5600	2950	4250	6350
250	2150	2800	4250	2700	3650	5500	2900	4150	6200

Maximum slab spans, mm — **Double span L/130**

Slab depth D (mm)	0.75 mm BMT BONDEK®II			1.00 mm BMT BONDEK®II			1.20 mm BMT BONDEK®II		
	No of props per span			No of props per span			No of props per span		
	0	1	2	0	1	2	0	1	2
110	2850	4400	6600	3550	5450	8150	4000	6150	9250
120	2800	4200	6300	3500	5200	7850	3900	5900	8900
130	2700	4050	6050	3400	5050	7550	3800	5700	8600
140	2650	3900	5850	3300	4850	7300	3700	5500	8300
150	2600	3750	5600	3250	4700	7050	3650	5350	8000
160	2550	3600	5450	3200	4550	6850	3550	5150	7750
170	2500	3500	5250	3100	4400	6650	3500	5000	7550
180	2450	3400	5100	3050	4300	6450	3450	4850	7300
190	2400	3300	4950	3000	4200	6300	3350	4750	7100
200	2350	3200	4800	2950	4050	6100	3300	4600	6900
210	2300	3100	4650	2900	3950	5950	3250	4500	6750
220	2250	3000	4550	2850	3850	5800	3200	4400	6600
230	2200	2950	4400	2800	3800	5700	3150	4300	6450
240	2200	2850	4300	2750	3700	5550	3100	4200	6300
250	2150	2800	4200	2700	3600	5450	3050	4100	6150

Maximum slab spans, mm — **Triple span L/180**

Slab depth D (mm)	0.75 mm BMT BONDEK®II			1.00 mm BMT BONDEK®II			1.20 mm BMT BONDEK®II		
	No of props per span			No of props per span			No of props per span		
	0	1	2	0	1	2	0	1	2
110	2900	4450	6700	3350	5550	8350	3550	6350	9550
120	2850	4250	6400	3250	5350	8000	3450	6100	9150
130	2750	4100	6150	3150	5150	7700	3350	5850	8800
140	2700	3900	5900	3050	4950	7450	3250	5650	8450
150	2650	3800	5700	3000	4800	7200	3200	5450	8200
160	2550	3650	5500	2950	4600	6950	3100	5250	7900
170	2500	3500	5300	2900	4500	6750	3050	5100	7650
180	2450	3400	5100	2800	4350	6550	3000	4950	7450
190	2400	3300	4950	2750	4250	6350	2950	4800	7200
200	2350	3200	4800	2700	4100	6200	2900	4650	7000
210	2300	3100	4700	2650	4000	6000	2850	4550	6850
220	2300	3050	4550	2600	3900	5850	2800	4450	6650
230	2250	2950	4450	2550	3800	5750	2750	4350	6500
240	2200	2900	4350	2500	3750	5600	2700	4250	6350
250	2150	2800	4250	2450	3650	5500	2650	4150	6200

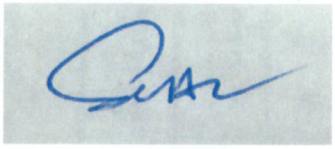
Maximum slab spans, mm — **Triple span L/130**

Slab depth D (mm)	0.75 mm BMT BONDEK®II			1.00 mm BMT BONDEK®II			1.20 mm BMT BONDEK®II		
	No of props per span			No of props per span			No of props per span		
	0	1	2	0	1	2	0	1	2
110	2850	4400	6600	3500	5450	8150	3700	6150	9250
120	2750	4200	6300	3450	5200	7850	3650	5900	8900
130	2700	4050	6050	3350	5050	7550	3550	5700	8600
140	2650	3900	5800	3300	4850	7300	3500	5500	8300
150	2550	3750	5600	3200	4700	7050	3400	5350	8000
160	2500	3600	5400	3150	4550	6850	3350	5150	7750
170	2450	3500	5250	3100	4400	6650	3300	5000	7550
180	2400	3400	5100	3050	4300	6450	3250	4850	7300
190	2350	3300	4950	3000	4200	6300	3200	4750	7100
200	2350	3200	4800	2950	4050	6100	3150	4600	6950
210	2300	3100	4650	2900	3950	5950	3100	4500	6750
220	2250	3000	4550	2850	3850	5800	3050	4400	6600
230	2200	2950	4400	2800	3800	5700	3000	4300	6450
240	2200	2850	4300	2750	3700	5550	2950	4200	6300
250	2150	2800	4200	2700	3600	5450	2950	4100	6150

1. The maximum pressure is limited to 10kPa on the air pressure rig. When the predicted failure load is expected more than 10kPa, the cylinder line load rig was used to carried out the test.
2. 7 tests had been conducted and compared the results with the design calculation.
3. The following technical requirements were used:
   a. Deflection calculated based on 120mm slab thickness – 3.6kPa.
   b. Design strength load based on tests had been calculated by multiplying failure load by 0.9 safety factor and ratio of 550MPa to tested yield stress.
   c. All spans are equal.

note: further details refer to Lysaght Bondek II Brochure.

Prepared by,



Wilson Lee

Testing Engineer

Approved by,

Gil Amilbangsa

Innovation Manager