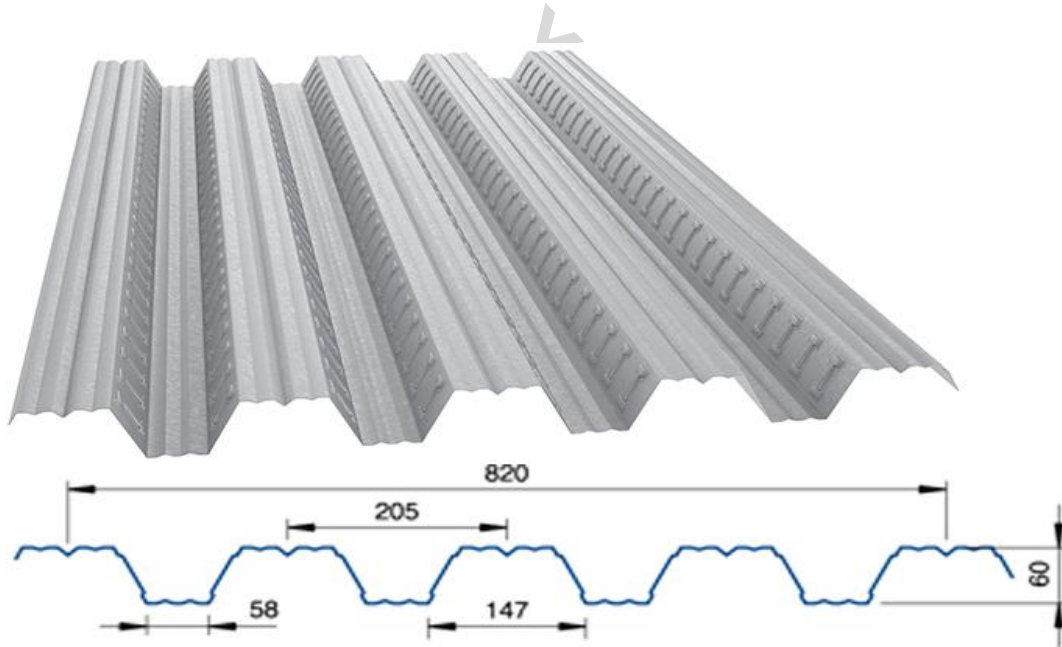


Technical data sheet of YX60-205-820

1. Basic information



Specifications:

Item	Data	Tolerance	Unit
Depth of profile	60	±3	mm
Pitch	205	±3	mm
Effective width	820	±5	mm
Coil width	1220		mm
Length	According to clients' request	±5	mm

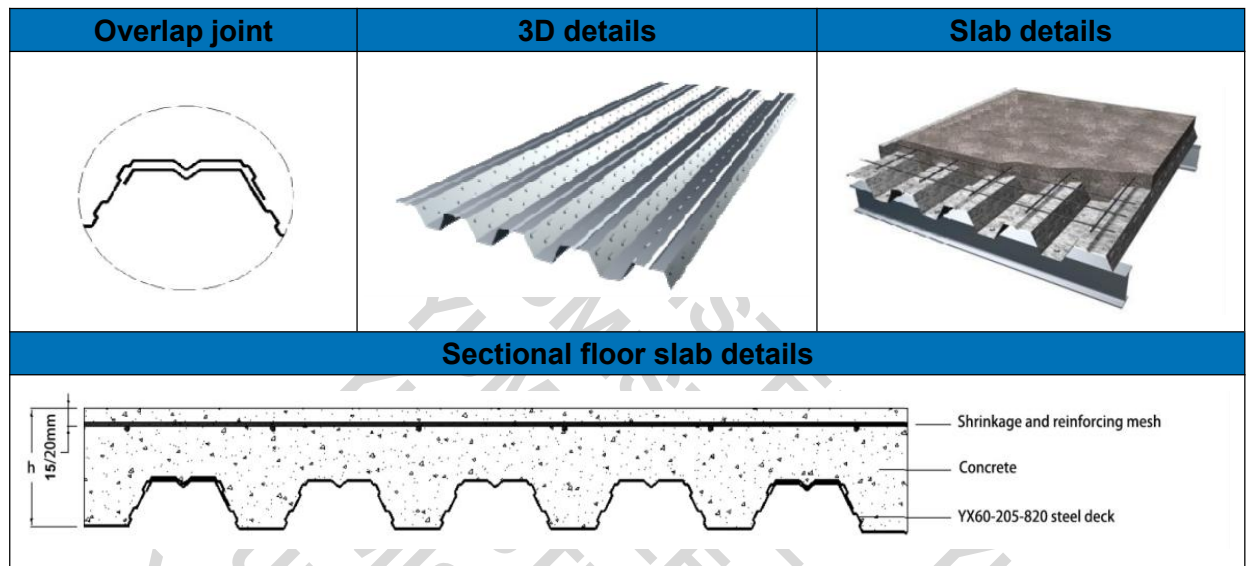
Sectional performance:

Thickness(mm)	Weight(kg/m ²)	I _g (cm ⁴ /ml)	W ₁ (cm ³ /ml)	W ₂ (cm ³ /ml)
0.75	8.76	55.15	17.02	20.73
1.00	11.68	74.56	23.02	28.03
1.20	14.02	90.1	27.81	33.87

Steel grade:

Standard	Grade
GB	Q235, Q345, SGC340, SGC440
EN	S235, S275, S320
ASTM	A653
AS	G350, G400, G450, G500, G550

Sectional details:



2. Concrete volume VS. Weight of composite slab

Slab depth, h (mm)	Concrete volume (dm ³ /m ²)	Steel deck thickness (mm)		
		0.75	1.00	1.20
100	67	17.00	17.30	17.50
110	77	19.40	19.70	19.90
120	87	21.80	22.10	22.30
130	97	24.20	24.50	24.70
140	107	26.60	26.90	27.10
150	117	29.00	29.30	29.50
160	127	31.40	31.70	31.90
170	137	33.80	34.10	34.30
180	147	36.20	36.50	36.70
190	157	38.60	38.90	39.10
200	167	41.00	41.30	41.50

Remark: This is based on grade Q345 (Yield strength is not less than 345MPa).

3. Load tables

Thickness:0.75mm

Single span-maximum permissible loads (N/m²)

Slab thickness(mm) Span(m)	100	110	120	130	140	150	160	170	180	190	200
2.00	9010	10010	11010	12020	13030	14050	15060	16080	17100	18120	19150
2.20	7470	8300	9130	9970	10810	11650	12500	13340	9850	10410	10980
2.40	6290	7000	7700	8410	5930	6360	6790	7210	7640	8070	8500
2.60	5380	5980	3980	4300	4620	4940	5270	5590	5920	6250	6580
2.80	2620	2860	3100	3340	3580	3820	4060	4310	4550	4800	5050
3.00				2560	2740	2910	3090	3270	3450	3630	3820
3.20									2550	2680	2810

Double span-maximum permissible loads (N/m²)

Slab thickness(mm) Span(m)	100	110	120	130	140	150	160	170	180	190	200
2.00	11330	12590	13850	15120	16390	17670	18940	20220	21500	22780	24070
2.20	9390	10440	11480	12540	13590	1465	15710	16770	17830	18890	19960
2.40	7910	8790	9680	10570	11460	12350	13240	14140	15030	15930	16830
2.60	6760	7520	8270	9030	9790	10550	11320	12080	12850	10120	10670
2.80	5850	6500	7150	7810	8470	9130	9790	7370	7810	8260	8710
3.00	5110	5680	6250	6830	7400	5320	5680	6040	6400	6760	7120
3.20	4500	5000	5510	3790	4070	4360	4650	4940	5240	5530	5820
3.40	4000	4450	2880	3110	3340	3570	3800	4040	4270	4510	4750
3.60				2540	2720	2910	3090	3280	3470	3660	3840
3.80								2640	2780	2930	3080

Double span-minimum mesh reinforcement sectional area (cm²/m)

Slab thickness(mm) Span(m)	100	110	120	130	140	150	160	170	180	190	200
2.00	2.11	1.99	1.91	1.85	1.80	1.76	1.73	1.70	1.68	1.66	1.64
2.20	2.21	2.08	2.00	1.93	1.88	1.84	1.81	1.78	1.76	1.74	1.72
2.40	2.31	2.18	2.09	2.03	1.98	1.93	1.90	1.87	1.85	1.83	1.81
2.60	2.43	2.30	2.20	2.13	2.07	2.03	2.00	1.97	1.94	1.33	1.31
2.80	2.56	2.42	2.31	2.24	2.18	2.14	2.10	1.36	1.34	1.33	1.32
3.00	2.70	2.55	2.44	2.36	2.30	1.41	1.39	1.37	1.35	1.33	1.32
3.20	2.85	2.68	2.57	1.49	1.44	1.41	1.38	1.36	1.35	1.33	1.31
3.40	3.02	2.84	1.54	1.49	1.44	1.41	1.38	1.36	1.34	1.33	1.32
3.60				1.48	1.44	1.41	1.38	1.36	1.35	1.33	1.31
3.80								1.36	1.34	1.33	1.32

Trible span-maximum permissible loads (N/m²)

Slab thickness(mm) Span(m)	100	110	120	130	140	150	160	170	180	190	200
2.00	10840	12050	12360	14470	15690	16910	18130	19360	20580	21810	23040
2.20	8990	9990	10990	12000	13010	14020	15030	16050	17070	18090	19110
2.40	7570	8420	9270	10120	10970	11820	12680	13530	14390	15250	16110
2.60	6470	7190	7920	8650	9370	10100	10840	11570	12300	9310	9820
2.80	5600	6220	6850	7480	8110	8740	6330	6730	7140	7540	7950
3.00	4890	5440	5980	6540	4500	4820	5140	5470	5790	6120	6440
3.20	4310	4790	3150	3410	3660	3910	4170	4430	4690	4950	5210
3.40			2560	2760	2960	3160	3360	3570	3770	3980	4180
3.60						2530	2690	2850	3010	3170	3330
3.80											2600

Trible span-minimum mesh reinforcement sectional area (cm² /ml)

Slab thickness(mm) Span(m)	100	110	120	130	140	150	160	170	180	190	200
2.00	1.69	1.60	1.54	1.49	1.45	1.42	1.40	1.38	1.36	1.34	1.33
2.20	1.76	1.67	1.60	1.56	1.52	1.49	1.46	1.44	1.42	1.41	1.39
2.40	1.84	1.75	1.68	1.63	1.59	1.56	1.53	1.51	1.49	1.48	1.46
2.60	1.93	1.83	1.76	1.71	1.67	1.63	1.61	1.59	1.57	0.97	0.96
2.80	2.03	1.92	1.85	1.80	1.75	1.72	1.00	0.99	0.97	0.96	0.95
3.00	2.13	2.03	1.94	1.89	1.03	1.01	0.99	0.97	0.96	0.94	0.93
3.20	2.25	2.13	1.08	1.05	1.01	0.99	0.97	0.95	0.94	0.93	0.92
3.40			1.06	1.02	0.99	0.97	0.95	0.93	0.92	0.91	0.90
3.60						0.95	0.93	0.92	0.90	0.89	0.88
3.80											0.89

Thickness:1.00mm

Single span-maximum permissible loads (N/m²)

Slab thickness(mm) Span(m)	100	110	120	130	140	150	160	170	180	190	200
2.00	11830	13150	14480	15810	17140	18480	19820	21160	22510	23860	25210
2.20	9800	10900	12000	13100	14200	15310	16420	17540	18660	19770	20900
2.40	8260	9180	10110	11030	11970	12900	13840	14780	11330	11980	12640
2.60	7050	7840	8630	9430	10220	7500	8010	8530	9050	9570	10090
2.80	6090	6780	4810	5210	5610	6010	6420	6830	7240	7650	8060
3.00	3240	3550	3860	4180	4490	4810	5130	5450	5770	6100	6420
3.20	2610	2850	3090	3340	3580	3830	4080	4330	4580	4830	5080
3.40				2640	2820	3010	3200	3390	3590	3780	38970

Double span-maximum permissible loads (N/m²)

Slab thickness(mm) Span(m)	100	110	120	130	140	150	160	170	180	190	200
2.00	12480	14340	16200	18060	19920	21770	23630	25490	27350	29210	31070
2.20	11200	12870	14540	16210	17870	19270	20670	22070	23470	24880	26290
2.40	10130	11550	12720	13880	15060	16230	17410	18590	19770	20960	22150
2.60	8870	9860	10860	11860	12860	13860	14870	15880	16890	17900	18920
2.80	7670	8520	9380	10250	11120	11980	12850	13720	14600	15480	16350
3.00	6690	7440	8190	8950	9700	10460	11220	11990	12750	13520	14280
3.20	5890	6550	7220	7880	8550	9220	9890	10560	7880	8340	8790
3.40	5230	5820	6410	7000	7590	5480	5860	6230	6610	6990	7370
3.60	4460	5200	5730	3990	4290	4600	4910	5230	5540	5850	6170
3.80		4680	3100	3350	3600	3860	4120	4370	4630	4890	5150
4.00			2600	2800	3010	3220	3430	3650	3860	4070	4290
4.20					2500	2670	2850	3020	3190	3370	3540
4.40									2610	2750	2890

Double span-minimum mesh reinforcement sectional area (cm² /ml)

Slab thickness(mm) Span(m)	100	110	120	130	140	150	160	170	180	190	200
2.00	2.44	2.41	2.38	2.37	2.36	2.34	2.34	2.33	2.32	2.32	2.31
2.20	2.85	2.80	2.77	2.74	2.72	2.65	2.60	2.55	2.52	2.49	2.46
2.40	3.30	3.18	3.02	2.90	2.82	2.75	2.69	2.65	2.61	2.58	2.55
2.60	3.56	3.30	3.14	3.01	2.92	2.85	2.79	2.75	2.71	2.67	2.65
2.80	3.72	3.44	3.26	3.13	3.04	2.96	2.90	2.85	2.81	2.78	2.75
3.00	3.88	3.59	3.40	3.26	3.16	3.08	3.02	2.97	2.93	2.89	2.86
3.20	4.06	3.75	3.55	3.40	3.30	3.22	3.15	3.10	2.08	2.05	2.03
3.40	4.26	3.92	3.71	3.56	3.44	2.18	2.14	2.10	2.08	2.05	2.03
3.60	4.20	4.11	3.88	2.30	2.23	2.18	2.13	2.10	2.07	2.04	2.02
3.80		4.31	2.38	2.29	2.22	2.17	2.13	2.09	2.06	2.04	2.02
4.00			2.37	2.28	2.22	2.16	2.12	2.09	2.06	2.04	2.02
4.20					2.21	2.16	1.12	2.08	2.05	2.03	2.01
4.40									2.05	2.02	2.00

Tribble span-maximum permissible loads (N/m²)

Slab thickness(mm)	Span(m)										
	100	110	120	130	140	150	160	170	180	190	200
2.00	12630	14520	16400	18280	20160	22040	23870	25490	27110	28740	30360
2.20	11340	13030	14450	15780	17110	18440	19780	21120	22460	23810	25160
2.40	9940	11060	12170	13290	14410	15530	16660	17790	18930	20060	21200
2.60	8490	9440	10390	11350	12310	13270	14230	15200	16170	17140	18110
2.80	7340	8160	8980	9810	10640	11470	12300	13140	13980	14810	15660
3.00	6410	7120	7840	8560	9290	10020	10740	11470	8660	9160	9660
3.20	5640	6270	6910	7550	8180	5970	6380	6790	7200	7610	8030
3.40	5010	5570	6130	4300	4640	4970	5310	5650	5990	6330	6670
3.60	4480	3050	3320	3590	3860	4140	4410	4690	4970	5250	5530
3.80		2540	2760	2980	3210	3430	3650	3880	4110	4340	4560
4.00					2640	2820	3010	3190	3370	3560	3740
4.20								2590	2740	2880	3030

Tribble span-minimum mesh reinforcement sectional area (cm² /ml)

Slab thickness(mm)	Span(m)										
	100	110	120	130	140	150	160	170	180	190	200
2.00	2.14	2.12	2.11	2.10	2.09	2.08	2.07	2.04	2.01	1.99	1.97
2.20	2.50	2.47	2.38	2.30	2.23	2.18	2.14	2.11	2.08	2.06	2.03
2.40	2.75	2.58	2.46	2.38	2.31	2.26	2.22	2.18	2.15	2.13	2.11
2.60	2.85	2.67	2.55	2.46	2.39	2.34	2.29	2.26	2.23	2.20	2.18
2.80	2.97	2.78	2.65	2.56	2.48	2.43	2.38	2.35	2.31	2.29	2.27
3.00	3.09	2.88	2.75	2.65	2.58	2.52	2.47	2.44	1.59	1.57	1.55
3.20	3.21	3.00	2.86	2.76	2.68	1.65	1.62	1.59	1.57	1.55	1.53
3.40	3.35	3.13	2.98	1.71	1.67	1.62	1.59	1.57	1.55	1.53	1.51
3.60	3.51	1.83	1.75	1.69	1.64	1.60	1.57	1.54	1.52	1.50	1.49
3.80		1.80	1.72	1.66	1.61	1.57	1.54	1.52	1.50	1.48	1.46
4.00					1.58	1.54	1.52	1.49	1.47	1.45	1.44
4.20								1.46	1.44	1.42	1.41

Thickness:1.20mm

Single span-maximum permissible loads (N/m²)

Slab thickness(mm)	Span(m)										
	100	110	120	130	140	150	160	170	180	190	200
2.20	11640	12940	14240	15550	16870	18190	19510	20840	22170	23500	24830
2.40	9800	10890	11990	13100	14210	15320	16430	17550	18670	19790	20920
2.60	8360	9300	10240	11180	12130	13080	14030	10850	11520	12190	12860
2.80	7230	8040	8850	9660	7210	7750	8280	8820	9360	9900	10440
3.00	6310	7010	5030	5460	5880	6310	6750	7180	7610	8050	8490



Xiamen Yumi New Material Technology Co., Ltd

Add:Unit 1304-3, Building 59, Chengyi North Street,
Phase III,Xiamen Software Park, Xiamen,China

Make a better building

Tel/Fax:+86-592-6095031 E-mail:manager@yumisteel.com

3.20	3440	3780	4110	4450	4800	5140	5490	5840	6190	6540	6890
3.40		3080	3350	3620	3890	4170	4450	4720	5000	5280	5560
3.60		2500	2710	2920	3140	3350	3570	3790	4010	4230	4450
3.80						2660	2830	3000	3170	3340	3510
4.00										2580	2710

Double span-maximum permissible loads (N/m²)

Slab thickness(mm)	100	110	120	130	140	150	160	170	180	190	200
	Span(m)										
2.40	10110	11620	13140	14650	16160	17670	19190	20700	22210	23720	25240
2.60	9200	10580	11960	13340	14720	16100	17470	18850	20060	21270	22480
2.80	8420	9690	10950	12160	13190	14220	15260	16300	17340	18380	19420
3.00	7270	8830	9720	10610	11510	12410	13320	14220	15130	14130	16960
3.20	6160	7770	8560	9350	10140	10930	11730	12530	13330	8950	14930
3.40	5240	6900	7590	8290	9000	9700	10410	11120	8460	7600	9440
3.60	4460	6130	6790	7410	8040	8670	6350	6770	7180	6450	8010
3.80		5260	6100	6670	4710	5060	5400	5750	6100	5470	6800
4.00			3440	3720	4010	4300	4590	4880	5180	4630	5770
4.20			2920	3160	3400	3650	3890	4140	4380	3900	4880
4.40				2680	2880	3080	3280	3490	3690	3260	4110
4.60						2580	2750	2920	3090	2700	3430
4.80									2560		2840

Double span-minimum mesh reinforcement sectional area (cm²/ml)

Slab thickness(mm)	100	110	120	130	140	150	160	170	180	190	200
	Span(m)										
2.40	3.29	3.21	3.16	3.12	3.08	3.06	3.04	3.03	3.01	3.00	2.99
2.60	3.76	3.64	3.56	3.51	3.47	3.43	3.40	3.38	3.33	3.24	3.25
2.80	4.26	4.10	3.99	3.89	3.75	3.65	3.56	3.50	3.44	3.39	3.35
3.00	4.37	4.52	4.23	4.03	3.88	3.77	3.69	3.62	3.56	3.51	3.47
3.20	4.32	4.69	4.39	4.18	4.03	3.91	3.82	3.75	3.69	3.64	3.59
3.40	4.27	4.89	4.56	4.34	4.18	4.06	3.96	3.89	2.68	2.64	2.61
3.60	4.20	5.06	4.75	4.51	4.34	4.21	2.76	2.71	2.67	2.64	2.60
3.80		4.98	4.94	4.70	2.88	2.81	2.75	2.70	2.66	2.63	2.60
4.00			3.10	2.97	2.87	2.80	2.74	2.69	2.65	2.62	2.59
4.20			3.08	2.95	2.86	2.79	2.73	2.69	2.64	2.61	2.58
4.40				2.94	2.85	2.78	2.72	2.67	2.63	2.60	2.58
4.60						2.76	2.71	2.66	2.62	2.59	2.56
4.80									2.61	2.58	2.55

Trible span-maximum permissible loads (N/m²)

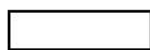
Slab thickness(mm)	Span(m)										
	100	110	120	130	140	150	160	170	180	190	200
2.20	11330	13020	14710	16400	18090	19780	21470	23170	24860	26550	28240
2.40	10250	11780	13310	14840	16380	17910	19440	20970	22490	23840	25200
2.60	9330	10730	12130	13470	14610	15750	16900	18050	19200	20360	21520
2.80	8520	9680	10660	11640	12620	13610	14600	15600	16590	17590	18590
3.00	7240	8450	9300	10160	11020	11880	12750	13620	14490	15360	16230
3.20	6200	7440	8190	8950	9700	10460	11230	8650	9180	9720	10250
3.40	5320	6600	7270	7940	8610	6400	6850	7290	7740	8190	8640
3.60	4580	5900	6500	4670	5040	5410	5780	6150	6530	6900	7280
3.80		3340	3650	3950	4260	4570	4880	5190	5500	5810	6130
4.00			3080	3330	3590	3840	4100	4360	4620	4880	5140
4.20			2590	2800	3010	3220	3440	3650	3860	4080	4300
4.40					2510	2680	2860	3030	3210	3380	3560
4.60									2630	2780	2920

Trible span-minimum mesh reinforcement sectional area (cm² /ml)

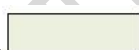
Slab thickness(mm)	Span(m)										
	100	110	120	130	140	150	160	170	180	190	200
2.20	2.50	2.47	2.44	2.43	2.41	2.40	2.39	2.39	2.38	2.37	2.37
2.40	2.88	2.83	2.79	2.76	2.74	2.73	2.71	2.70	2.69	2.65	2.63
2.60	3.28	3.20	3.15	3.09	2.99	2.92	2.86	2.81	2.77	2.73	2.71
2.80	3.68	3.51	3.32	3.19	3.09	3.01	2.95	2.90	2.85	2.82	2.79
3.00	3.67	3.63	3.43	3.29	3.19	3.11	3.05	2.99	2.95	2.91	2.88
3.20	3.66	3.76	3.55	3.41	3.30	3.21	3.15	2.11	2.08	2.06	2.03
3.40	3.64	3.90	3.68	3.53	3.41	2.17	2.12	2.09	2.06	2.03	2.01
3.60	3.61	4.05	3.82	2.26	2.19	2.14	2.10	2.06	2.03	2.01	1.99
3.80		2.43	2.31	2.23	2.16	2.11	2.07	2.03	2.00	1.98	1.96
4.00			2.27	2.19	2.13	2.07	2.03	2.00	1.97	1.95	1.93
4.20			2.23	2.15	2.09	2.04	2.00	1.97	1.94	1.92	1.90
4.40					2.05	2.00	1.97	1.93	1.91	1.88	1.86
4.60									1.87	1.85	1.83

Remark:

- Color remark:



Unpropped slabs



Propped slabs

- The loads above applied over the slab are characteristic values of actions (not factored loads) for a 30 minutes fire resistance without reinforcing mesh. In those situations no bar reinforcement are needed.

- In case of needing bigger static loads, a fire rating bigger than 30 minutes, or dynamic loads

are preview ridding over the slab contact with Technical Department.

- The self weight of the slab has been taken in to account in the table and should not be included in the applied loading.

- Calculation data:

Deflection limit under construction loading: $f = l/240$

Deflection limit under composite loading: $l \leq 3,5 \text{ m } f = l/350$

$l > 3,5 \text{ m } f = 0,5 \text{ cm} + l/700$

Fragile floors $f = l/500$

Slenderness criterion:

Simply supported beam $l/h \leq 33$

Continuous beam $l/h \leq 36$

Reinforcements steel grade:	HBR500	
Steel grade of deck panel:	Q345(≈S320GD)	
Minimum ultimate strength for concrete:	$f_{ck} = 25 \text{ N/mm}^2$	
Partial safety factors for loads:	Dead (self weight)	1.35
	Imposed	1.50

- Other notes:

- The only right position of the metal deck is shown at page 1.
- Decking panel must be propped only when is required according to tables.
- Openings must be boxed out before pouring the concrete and cut out the deck after the concrete has cured. For openings bigger than 300 mm x 300 mm additional reinforcements are required.
- Big cantilevers must be verified.

4. Construction details

