



ULTRA-BOND COMPOSITE FLOOR DECK
 MAXIMUM SPECIFIED UNIFORMLY DISTRIBUTED LOAD (KPa)
 INCLUDES DEAD AND CONSTRUCTION LOAD CARRIED
 BY METAL DECK *(NOT SHOWN IN TABLES)*
 LIMIT STATE DESIGN (LSD) -METRIC UNITS

0.96 mm Deck
20 mm Rebar

INPUT SECTION:

ITEM	DESCRIPTION OR SECTION PROPERTIES	CONCRETE COVER ABOVE TOP OF METAL DECK (hf) OR (hc) (mm)							
		63.50	76.20	88.90	101.60	114.30	127.00	139.70	152.40
A	METAL DECK THICK (mm) (Td)	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
B	METAL DECK YIELD STRENGTH (KPa)(Fy)	280	280	280	280	280	280	280	280
C	METAL DECK EFF. (Ix) (mm ⁴)/m	4.60E+06	4.60E+06	4.60E+06	4.60E+06	4.60E+06	4.60E+06	4.60E+06	4.60E+06
D	METAL DECK EFF. (Sx) (mm ³)/m	3.68E+04	3.68E+04	3.68E+04	3.68E+04	3.68E+04	3.68E+04	3.68E+04	3.68E+04
E	METAL DECK (Es)(KPa)	2.03E+08	2.03E+08	2.03E+08	2.03E+08	2.03E+08	2.03E+08	2.03E+08	2.03E+08
F	# REINFORCING STEEL BAR DIA. (mm)	20	20	20	20	20	20	20	20
G	CONCRETE STRENGTH (f'c) (KPa)	3.00E+04	3.00E+04	3.00E+04	3.00E+04	3.00E+04	3.00E+04	3.00E+04	3.00E+04
H	CONCRETE (Ec) (KPa)	2.62E+07	2.62E+07	2.62E+07	2.62E+07	2.62E+07	2.62E+07	2.62E+07	2.62E+07
I	A _F (mm ²)/m	1454.150	1454.150	1454.150	1454.150	1454.150	1454.150	1454.150	1454.150
J	I _{x(f)} (mm ⁴)/m	7.78E+06	7.78E+06	7.78E+06	7.78E+06	7.78E+06	7.78E+06	7.78E+06	7.78E+06
K	ALLOWABLE FORCE (KN/m)	6.378	6.378	6.378	6.378	6.378	6.378	6.378	6.378
L	FINAL EFF. CROSS SECT. AREA A _{SO} (IN ²)	361	361	361	361	361	361	361	361
M	DEFLECTION CRITERIA K _{1,2,3,4}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
N	DEFLECTION CRITERIA *	L/360	L/360	L/360	L/360	L/360	L/360	L/360	L/360

* DEFLECTION CRITERIA: L/360 (K₁=1), L/480 (K₂=1.333), L/600 (K₃=1.670) OR L/720 (K₄=2.0)
 # REINFORCING BAR Fy0=400MPa

OUTPUT SECTION #1

ITEM	DESCRIPTION	CONCRETE COVER ABOVE TOP OF METAL DECK (hf) OR (hc) (mm)							
		63.50	76.20	88.90	101.60	114.30	127.00	139.70	152.40
O	MAX. UNSHORED SPAN (C.L.1.006KPa).m.	2.88	2.66	2.46	2.30	2.15	2.02	1.91	1.81
P	MAX. UNSHORED SPAN (C.L.2.011KPa).m.	2.24	2.10	1.98	1.87	1.78	1.69	1.61	1.54
Q	TOTAL DEAD LOAD (NO CONST.)KPa.	2.538	2.837	3.136	3.435	3.734	4.034	4.333	4.632
R	CONCRETE VOLUME. m ³ /10m ²	1.013	1.140	1.267	1.394	1.521	1.648	1.775	1.901

C.L. = CONSTRUCTION LOAD (Pa)

OUTPUT SECTION #2: PLOT DATA - AND INPUT SECTION AS SHOWN #

ITEM	DESCRIPTION	(hf) OR (hc) (mm)	# MAXIMUM SPECIFIED UNIFORMLY DISTRIBUTED LOAD (KPa)							
			4.07	4.31	4.79	5.27	5.75	6.22	6.70	6.94
1	ALLOW. SINGLE UNSUP. SPAN - m.	63.50	7.25	7.13	6.91	6.71	6.53	6.36	6.21	6.13
2	ALLOW. SINGLE UNSUP. SPAN - m.	76.20	7.27	7.16	6.95	6.76	6.58	6.42	6.26	6.19
3	ALLOW. SINGLE UNSUP. SPAN - m.	88.90	7.28	7.18	6.98	6.79	6.62	6.46	6.32	6.25
4	ALLOW. SINGLE UNSUP. SPAN - m.	101.60	7.30	7.20	7.00	6.83	6.66	6.51	6.36	6.30
5	ALLOW. SINGLE UNSUP. SPAN - m.	114.30	7.31	7.21	7.03	6.86	6.70	6.55	6.41	6.34
6	ALLOW. SINGLE UNSUP. SPAN - m.	127.00	7.32	7.23	7.05	6.89	6.73	6.59	6.45	6.39
7	ALLOW. SINGLE UNSUP. SPAN - m.	139.70	7.34	7.25	7.07	6.91	6.76	6.62	6.49	6.43
8	ALLOW. SINGLE UNSUP. SPAN - m.	152.40	7.35	7.26	7.09	6.94	6.79	6.66	6.53	6.47

