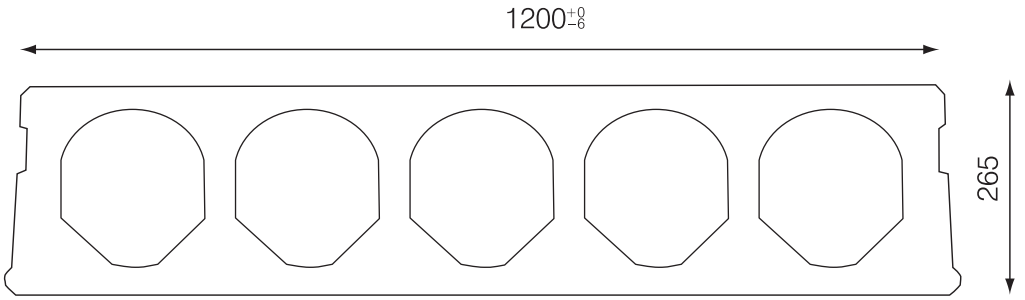
DP HOLLOW CORE SLAB — TYPE DP 5 - 265



Load Table DP 5 - 265

NO STRUCTURAL TOPPING

STRAND PATTERN	BEARING CAPACITY PER SLAB UNIT (1.20 M WIDTH)	SPAN (m)	4	6	8	10	11	12	13	14
6 no. 9.3 mm	M_{SLS} = 75 kNm/s.u.	q_{SLS} (kN/m^2)	24.3	9.6	3.9	1.2				
	M_{ULS} = 106 kNm/s.u.	q_{ULS} (kN/m^2)	36.8	14.8	6.2	2.2				
Mcrack = 113 kNm/s.u.	V_{UD} = 100 kN/s.u.	c (mm)	-3	-4	-3	+5				
4 no. 12.5 mm	M_{SLS} = 90 kNm/s.u.	q_{SLS} (kN/m^2)	23.4	12.1	5.3	2.1				
	M_{ULS} = 126 kNm/s.u.	q_{ULS} (kN/m^2)	35.5	18.5	8.3	3.5				
Mcrack = 120 kNm/s.u.	V_{UD} = 97 kN/s.u.	c (mm)	-3	-5	-6	+2				
6 no. 12.5 mm	M_{SLS} = 132 kNm/s.u.	q_{SLS} (kN/m^2)		15.6	9.4	4.7	3.3	2.3		
	M_{ULS} = 186 kNm/s.u.	q_{ULS} (kN/m^2)		23.7	14.5	7.5	5.4	3.8		
Mcrack = 152 kNm/s.u.	V_{UD} = 103 kN/s.u.	c (mm)		-9	-12	-9	-4	+3		
8 no. 12.5 mm	M_{SLS} = 170 kNm/s.u.	q_{SLS} (kN/m^2)		16.1	11.2	7.3	5.4	4.0	2.9	
	M_{ULS} = 242 kNm/s.u.	q_{ULS} (kN/m^2)		24.6	17.2	11.3	8.5	6.3	4.7	
Mcrack = 170 kNm/s.u.	V_{UD} = 106 kN/s.u.	c (mm)		-12	-16	-16	-13	-7	+2	
10 no. 12.5 mm	M_{SLS} = 194 kNm/s.u.	q_{SLS} (kN/m^2)		16.9	11.8	8.7	6.8	5.1	3.9	2.9
	M_{ULS} = 280 kNm/s.u.	q_{ULS} (kN/m^2)		25.7	18.1	13.5	10.6	8.1	6.2	4.7
Mcrack = 194 kNm/s.u.	V_{UD} = 110 kN /s.u.	c (mm)		-15	-23	-26	-25	-21	-14	-6
Slab Selfweight = 3.25kN/m^2	M_{SLS} = Slab Moment Capacity (Service limit Stage)	q_{SLS} = Maximum allowed imposed dead and live load,unfactored (excluding selfweight of slab)								
Joint Filling = 0.20kN/m^2	M_{ULS} = Slab Moment Capacity (Ultimate limit Stage)	q_{ULS} = Maximum allowed imposed dead and live load ,factored (excluding selfweight of slab)								
Total Selfweight = 3.45kN/m^2	V_{UD} = Slab Shear Capacity (Ultimate limit Stage)	c = Theoretical camber at time of installation (+ indicate deflection)								

Load Table DP 5 - 265 + 75

75mm STRUCTURAL TOPPING

STRAND PATTERN	BEARING CAPACITY PER SLAB UNIT (1.20 M WIDTH)	SPAN (m)	4	6	8	10	11	12	13	14
8 no. 12.5 mm	M_{SLS} = 221 kNm/s.u.	q_{SLS}		16.0	10.6	7.4	6.2	4.3	3.0	
	M_{ULS} = 316 kNm/s.u.	q_{ULS}		24.5	16.5	11.7	9.9	7.1	5.0	
Mcrack = 221 kNm/s.u.	V_{UD} = 115 kN/s.u.	c_t		-12	-15	-11	-6	+5	+20	
10 no. 12.5 mm	M_{SLS} = 50 kNm/s.u.	q_{SLS}		16.8	11.3	8.0	6.7	5.7	4.7	3.3
	M_{ULS} = 384 kNm/s.u.	q_{ULS}		25.8	17.5	12.5	10.7	9.2	7.7	5.6
Mcrack = 250 kNm/s.u.	V_{UD} = 120 kNs.u.	c_t		-15	-22	-22	-18	-10	-3	+20
Slab Selfweight = 3.25kN/m^2	M_{SLS} = Slab Moment Capacity (Service limit Stage)	q_{SLS} = Maximum allowed imposed dead and live load,unfactored (excluding selfweight of slab + topping)								
Joint Filling = 0.20kN/m^2	M_{ULS} = Slab Moment Capacity (Ultimate limit Stage)	q_{ULS} = Maximum allowed imposed dead and live load ,factored (excluding selfweight of slab+ topping)								
75mm Topping = 1.87kN/m^2	V_{UD} = Slab Shear Capacity (Ultimate limit Stage)	c_t = Theoretical camber just after casting the topping (+ indicate deflection)								
Total Selfweight = 5.32kN/m^2										