

THE STRUCTURAL DOME FLOORING SYSTEM



CONCRETE CONSUMPTION TO THE TOP OF THE CUPOLEX ELEMENTS

CUPOLEX Height cm (inches)	m ³ /m ²	Cubic Yards per sq.ft
9.5 (4")	0.01	0.0017
13.5(5")	0.03	0.0036
20 (8")	0.04	0.0043
26 (10")	0.05	0.0055
30 (12")	0.04	0.0051
35 (14")	0.05	0.0055
40(16")	0.06	0.0073
45(18")	0.06	0.0078
50 (22")	0.07	0.0079
70 (28")	0.11	0.0134
5 (2") Windi	0.0080	0.0010
10 (4") Windi	0.0110	0.0013

Load Bearing for Distributed Permanent Dead-loads Kg/sm (lb/sq.inch)

The values shown on the chart give the allowable distributed permanent dead load, determined by the thickness of the slab and the type of sub-base and soil bearing capacity. The following are not considered:

- Concentrated or point loads
- Variations in the rigidity of the soil on site
- For special sites and loads, these aspects must be analyzed in the final testing phase

Cupolex mm (inches)	Sub-Base		SOIL BEARING CAPACITY Kg/cm ² (lb/sq.inch)						
			0.8	1	1.2	1.5	2	2.5	3
			(12)	(15)	(17)	(22)	(29)	(36)	(43)
30 mm (1.25")	Native Soil	Kg/m ²	150	200	300	450	650	900	1000
		Lb/sq.ft	31	41	61	92	133	184	205
30 mm (1.25")	Mud Slab	Kg/m ²	2000	2400	2600	2600	2600	2600	2600
		Lb/sq.ft	410	492	533	533	533	533	533
30 mm (1.25")	Gravel & Mud Slab	Kg/m ²	2600	2600	2600	2600	2600	2600	2600
		Lb/sq.ft	533	533	533	533	533	533	533
40 mm (1.5")	Native Soil	Kg/m ²	-	170	275	430	600	900	1000
		Lb/sq.ft	-	35	56	88	123	184	205
40 mm (1.5")	Mud Slab	Kg/m ²	2000	2350	2600	2700	2800	2800	2800
		Lb/sq.ft	410	481	533	553	573	573	573
40 mm (1.5")	Gravel & Mud Slab	Kg/m ²	2800	2800	2800	2800	2800	2800	2800
		Lb/sq.ft	573	573	573	573	573	573	573
50 mm (2")	Native Soil	Kg/m ²	-	150	250	400	600	850	950
		Lb/sq.ft	-	31	51	82	123	174	195
50 mm (2")	Mud Slab	Kg/m ²	1950	2300	2550	2800	3000	3000	3000
		Lb/sq.ft	399	471	522	573	614	614	614
50 mm (2")	Gravel & Mud Slab	Kg/m ²	3000	3000	3000	3000	3000	3000	3000
		Lb/sq.ft	614	614	614	614	614	614	614
80 mm (3.25")	Native Soil	Kg/m ²	-	-	150	350	550	800	900
		Lb/sq.ft	-	-	31	72	113	164	184
80 mm (3.25")	Mud Slab	Kg/m ²	1900	2300	3200	4000	5100	5100	5100
		Lb/sq.ft	389	471	655	819	1045	1045	1045
80 mm (3.25")	Gravel & Mud Slab	Kg/m ²	5100	5100	5100	5100	5100	5100	5100
		Lb/sq.ft	1045	1045	1045	1045	1045	1045	1045
100 mm (4")	Mud Slab	Kg/m ²	2000	2400	3200	4000	4500	5500	5500
		Lb/sq.ft	410	492	655	819	922	1126	1126
100 mm (4")	Gravel & Mud Slab	Kg/m ²	5100	5100	5100	5100	5100	6500	8000
		Lb/sq.ft	1045	1045	1045	1045	1045	1331	1639
120 mm (4.75")	Mud Slab	Kg/m ²	2050	2650	3200	4000	5100	6900	8350
		Lb/sq.ft	420	543	655	819	1045	1413	1710
120 mm (4.75")	Gravel & Mud Slab	Kg/m ²	5100	6800	7750	9750	10000	10000	10000
		Lb/sq.ft	1045	1393	1587	1997	2048	2048	2048

NOTE: Thickness of the mud slab and gravel for this chart is 10cm (4") and 30 cm (12") respectively