



Pavimento Superior
Formoso
Concreto: C30, em geral
CA-50-A e CA-60-B
M: Momento fletor de cálculo por metro de largura (kN·m/m)
V: Esforço cortante de cálculo por metro de largura (kN/m)
Escala: 1:50

Resumo Aço Pavimento Superior Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	333.5	91	
φ6.3			
φ8	555.9	240	
φ10	612.9	423	
φ12.5	251.5	271	
φ16	181.0	313	
φ20	26.3	72	1410
CA-60-B	1395.8	241	
φ5			
Total			1651

Pavimento Superior - Superfície total 428,85 m²			
Elemento	Forma (m²)	Volume (m³)	Peso (kg)
LAJES	428,85	33,50	536
Vigas fundo	47,79	23,04	1851
Forma lateral	208,76		
Pilares (Cil. Formas)	139,20	7,83	1248
Escadas	27,26	5,61	474
Total	851,86	70,24	3029
Redes (por m²)	1,790	0,146	6,170

Elemento	Pos.	Diam.	Q.	DoB (cm)	RetD (cm)	Comp (cm)	Total (cm)	CA-50 (kg)	CA-60-B (kg)	
V 1	1	φ10	2	12	569	12	593	1186	7.4	
	2	φ12.5	3	12	395	36	395	395	3.9	
	3	φ8	3	10	569	30	569	569	4.6	
	4	φ5	3	10	100	30	100	3100		
Total+10% 17.5										
V 2	5	φ8	2	10	264	10	284	568	2.2	
	6	φ8	2	10	264	10	284	568	2.2	
	7	φ5	2	10	100	10	100	1400		
Total+10% 4.8										
V 3	1	φ8	2	12	843	12	843	1686	6.6	
	2	φ8	2	12	843	12	843	1686	6.6	
	3	φ8	2	12	843	12	843	1686	6.6	
	4	φ8	2	12	843	12	843	1686	6.6	
	5	φ10	2	12	843	12	843	1686	6.6	
	6	φ5	2	12	843	12	843	1686	6.6	
Total+10% 20.1										
V 4	8	φ12.5	4	15	569	15	599	2396	33.5	
	9	φ8	4	10	569	40	569	2396	33.5	
	10	φ6.3	20	10	100	200	100	3060	7.6	
	Total+10% 44.3									
V 5	11	φ12.5	2	17	825	17	807	1718	16.9	
	12	φ12.5	2	15	825	15	825	840	8.2	
	13	φ20	2	26	825	26	877	2631	65.1	
	14	φ6.3	30	10	100	300	100	4590	11.3	
Total+10% 111.7										
V 6	15	φ16	4	19	569	19	607	2428	38.1	
	16	φ16	4	19	569	19	607	2428	38.1	
	17	φ6.3	2	10	100	20	100	3211	7.9	
	Total+10% 92.5									
V 7	18	φ8	2	10	144	10	164	328	1.3	
	19	φ8	2	10	144	10	164	328	1.3	
	20	φ5	2	10	100	10	100	700		
	21	φ5	2	10	100	10	100	700		
	Total+10% 2.9									
V 8	1	φ10	2	12	843	12	843	1686	10.6	
	2	φ10	2	12	843	12	843	1686	10.7	
	3	φ12.5	4	12	445	48	445	890	8.7	
	4	φ10	4	12	433	48	445	890	8.6	
	5	φ12.5	4	12	340	48	340	340	3.3	
	6	φ10	4	12	250	48	250	250	1.6	
	7	φ10	4	12	855	48	855	1710	10.7	
	8	φ12.5	4	12	860	48	860	2088	15.3	
	9	φ10	4	12	838	48	838	1700	10.7	
	10	φ5	132	10	100	13200	100	13200	20.7	
Total+10% 94.9										
V 9	1	φ10	2	12	888	12	888	1776	11.3	
	2	φ16	19	19	634	19	672	1344	21.3	
	3	φ10	2	12	888	12	888	1776	11.3	
	4	φ10	2	12	888	12	888	1776	11.3	
	5	φ16	19	19	565	19	565	1130	7.1	
	6	φ16	19	19	565	19	565	1130	7.1	
	7	φ10	2	12	888	12	888	1776	11.3	
	8	φ8	3	10	320	30	320	320	1.3	
	9	φ10	2	12	888	12	888	1776	11.3	
	10	φ10	2	12	223	12	235	470	3.0	
	11	φ12.5	4	12	888	12	888	1776	11.3	
	12	φ10	2	12	888	12	888	1776	11.3	
	13	φ12.5	4	12	635	48	635	635	12.5	
	14	φ10	4	12	585	48	585	1170	11.2	
	15	φ6.3	23	10	100	230	100	3519	8.7	
Total+10% 160.3										
V 10	16	φ10	2	12	889	12	889	1778	11.5	
	17	φ8	2	12	889	12	889	1778	11.5	
	18	φ10	2	12	889	12	889	1778	11.5	
	20	φ5	46	10	245	460	100	4600	7.2	
Total+10% 35.7										
V 11	21	φ16	4	19	634	19	672	2688	42.2	
	22	φ10	2	12	223	12	235	470	3.0	
	23	φ6.3	10	10	85	170	10	85	0.4	
	24	φ12.5	4	15	705	15	720	1440	14.1	
	25	φ10	2	12	840	12	840	840	4.0	
	26	φ16	4	19	221	19	240	480	7.5	
	27	φ5	14	10	100	140	100	1400	4.1	
	28	φ6.3	23	10	100	230	100	3519	8.7	
Total+10% 87.9										
V 12	29	φ10	2	12	889	12	889	1778	11.5	
	30	φ8	2	12	889	12	889	1778	11.5	
	31	φ10	2	12	889	12	889	1778	11.5	
	32	φ5	46	10	245	460	100	4600	7.2	
Total+10% 26.7										
V 13W 15	33	φ8	2	10	520	10	540	1080	4.2	
	34	φ8	2	10	520	10	540	1080	4.2	
	35	φ5	26	10	100	260	100	2600	4.1	
	36	φ5	26	10	100	260	100	2600	4.1	
Total+10% 9.2										
V 14	36	φ10	2	12	520	12	544	1088	6.8	
	37	φ8	2	12	520	12	544	1088	6.8	
	38	φ10	2	12	520	12	544	1088	6.8	
	39	φ8	2	12	185	12	185	185	0.7	
	40	φ5	26	10	100	260	100	2600	4.1	
Total+10% 17.2										
V 16	41	φ12.5	4	15	645	15	660	1320	13.0	
	42	φ10	4	15	360	48	360	360	2.4	
	43	φ8	4	12	220	48	220	220	1.8	
	44	φ12.5	4	15	834	48	864	1728	17.0	
	45	φ12.5	4	15	230	48	230	230	2.3	
	46	φ5	19	10	100	190	100	4600	4.1	
Total+10% 40.2										
V 17	47	φ16	4	19	834	19	872	1744	27.4	
	48	φ10	4	12	834	12	858	1716	11.6	
	49	φ10	4	12	834	12	858	1716	11.6	
	50	φ6.3	30	10	100	300	100	4590	11.3	
	Total+10% 74.0									
V 18	1	φ8	2	10	465	10	475	950	3.7	
	2	φ16	19	19	460	19	498	996	15.6	
	3	φ8	2	10	465	10	475	950	3.7	
	4	φ16	19	19	285	19	285	285	2.6	
	5	φ12.5	4	12	775	12	775	1550	15.2	
	6	φ10	2	12	463	12	475	950	6.0	
	7	φ5	14	10	100	140	100	1400	4.1	
	8	φ5	19	10	100	190	100	2660	4.2	
Total+10% 52.0										
V 19	59	φ10	2	12	305	12	325	650	2.6	
	60	φ8	2	10	305	10	325	650	2.6	
	61	φ5	16	10	100	160	100	1600	4.1	
Total+10% 7.4										
V 20	11	φ10	2	12	430	12	450	900	3.5	
	12	φ10	2	12	430	12	450	900	3.5	
	13	φ5	22	10	100	220	100	2200	3.5	
Total+10% 10.1										
V 21	14	φ8	2	10	688	10	698	1396	5.1	
	15	φ8	2	10	688	10	698	1396	5.1	
	16	φ8	2	10	339	10	359	718	2.8	
	17	φ8	2	10	340	10	340	340	1.3	
	18	φ8	2	10	622	10	622	1244	4.6	
	19	φ10	2	10	690	12	700	1400	5.5	
	20	φ5	45	10	100	450	100	4500	7.0	
	21	φ5	45	10	100	450	100	4500	7.0	
	22	φ5	11	10	100	110	100	1400	4.1	
	Total+10% 26.3									
	V 22	22	φ12.5	4	15	625	15	655	2620	25.7
23		φ8	4	12	625	12	640	1840	12.2	
24		φ6.3	23	10	100	230	100	3519	8.7	
Total+10% 49.0										
V 23	1	φ8	2	10	245	10	265	530	2.1	
	2	φ8	2	10	245	10	265	530	2.1	
	3	φ8	2	10	245	10	265	530	2.1	
	10	φ5	12	10	100	120	100	1200	1.9	
Total+10% 4.6										
V 24	1	φ8	2	10	990	10	1010	2020	7.9	
	2	φ10	2	12	990	12	1014	2028	12.7	
	3	φ6.3	23	10	100	230	100	3100	8.0	
	Total+10% 22.7									
V 25	1	φ16	4	19	625	19	663	2652	41.6	
	2	φ10	4	12	625	12	640	1840	12.2	
	3	φ6.3	23	10	100	230	100	3519	8.7	
	Total+10% 68.8									
	1	φ8	2	10	135	1135	1135	2270	8.9	
	2	φ8	2	10	980	12	990	1980	7.8	
	3	φ10	2	12	833	12	845	1690	11.3	
4	φ10	2	12	1150	12	1150	2300	14.4		
5	φ8	2	10	970	10	980	1960	7.7		
6	φ10	2	12	888	12	900	1800	11.3		
7	φ5	154	10	100	1540	100	15400	24.2		
Total+10% 67.5										
V 27	8	φ8	2	10	542	10	562	1124	4.4	
	9	φ8	2	10	542	10	562	1124	4.4	
	10	φ5	26	10	280	260	100	2800	4.4	
Total+10% 9.7										
V 28	11	φ10	2	12	1150	12	1150	2300	14.4	
	12	φ10	2	12	833	12	845	1690	11.3	
	13	φ10	2	12	630	12	630	630	4.0	
	14	φ8	2	10	545	10	545	1090	4.0	
	15	φ10	2	12	1185	12	1185	2370	14.6	
	16	φ10	2	12	9					