TYPICAL NEAT CEMENT MIXES

These material weights and measures are for one cubic yard or cubic meter of cellular concrete.

Multiply these amounts by the number of cubic yards or cubic meters you wish to batch for your project.

GUIDELINES FOR CELLULAR CONCRETE STRENGTH/DENSITY CHART

TYPICAL VALUES

Cast Density		Average Compressive Strength (28 days)		Portland Cement		Water		Average Foam Volume	
lb/ft³	kg/m³	psi	MPa	lb/yd³	kg/m³	gal	L	ft³/yd³	m³/m³
20	320	50	0.34	328	195	20	98	22.7	0.84
25	400	80	0.55	420	249	25	125	21.5	0.80
30	481	140	0.97	512	304	31	152	20.3	0.75
35	561	210	1.45	603	358	36	179	19.1	0.71
40	641	330	2.28	695	412	42	206	17.9	0.66
45	721	450	3.10	787	467	47	234	16.7	0.62
50	801	640	4.41	878	521	53	260	15.5	0.57
55	881	790	5.45	970	575	58	288	14.3	0.53
60	961	930	6.41	1062	630	64	315	13.1	0.49

The above chart illustrates the various typical properties of weight/density and compressive strength values attainable with various volumes of pre-formed foam additions to neat cement mixes. Please contact Aerix Industries technical department for an exact mix design recommendation. DO NOT USE THIS CHART FOR SUBMITTAL ON ACTUAL MIX DESIGN BUT JUST AS A MIX DESIGN GUIDELINE

- Typical mix designs illustrated above are based on a water/cement ratios
- ASTM C 495 used for compressive strength testing of Lightweight Insulating Concrete
- Actual properties will depend on cement used, curing conditions and other variables as dictated by job site conditions

*The compressive strengths and foam volume shown are approximate. As with traditional concrete, the strength at any given density and mix proportion will also vary with the type of cement and the final water content of the mix. Substantial increases in strength will result by reduction of the w/c ratio, such as is possible with efficient mixing equipment and by curing in low-pressure steam. Other admixtures such as foam compatible dispersing agents and water reducing agents may contribute to strength increases.

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SAND/CEMENT GROUT MIXES

These material weights and measures are for one cubic yard or cubic meter of cellular concrete.

Multiply these amounts by the number of cubic yards or cubic meters you wish to batch for your project.

GUIDELINES FOR CELLULAR CONCRETE STRENGTH/DENSITY CHART

TYPICAL VALUES

Cast Density		Average Compressive Strength (28 days)		Portland Cement		Sand		Water		Average Foam Volume	
lb/ft³	kg/m³	psi	MPa	lb/yd³	kg/m³	lb/yd³	kg/m³	gal	L	ft³/yd³	m³/m³
90	1492	400	2.76	512	304	1640	973	33	162	10.1	0.37
95	1522	750	5.17	542	322	1730	1026	35	171	9.1	0.34
100	1602	1000	6.89	570	338	1815	1077	37	181	8.2	0.30
105	1682	1500	10.34	600	356	1915	1136	38	196	7.3	0.27
110	1762	2000	13.79	630	374	2010	1192	40	199	6.4	0.24
115	1842	2500	17.24	658	390	2100	1246	42	208	5.4	0.20
120	1922	3000	20.68	688	408	2190	1299	44	217	4.5	0.17
125	2002	3500	24.13	714	424	2280	1353	46	226	3.5	0.13

The above chart illustrates the various typical properties of weight/density and compressive strength values attainable with various volumes of pre-formed foam additions to neat cement mixes. Please contact Aerix Industries technical department for an exact mix design recommendation. DO NOT USE THIS CHART FOR SUBMITTAL ON ACTUAL MIX DESIGN BUT JUST AS A MIX DESIGN GUIDELINE

- Typical mix designs illustrated above are based on a dry sand/cement ratios
- ASTM C 495 used for compressive strength testing of Lightweight Insulating Concrete
- Actual properties will depend on cement used, curing conditions and other variables as dictated by job site conditions

*The compressive strengths and foam volume shown are approximate. As with traditional concrete, the strength at any given density and mix proportion will also vary with the type of cement and the final water content of the mix. Substantial increases in strength will result by reduction of the w/c ratio, such as is possible with efficient mixing equipment and by curing in low-pressure steam. Other admixtures such as foam compatible dispersing agents and water reducing agents may contribute to strength increases.

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