

Engineering Information

Quantities and Coarse Aggregate Required for Mortar or concrete. Stone 45% specific gravity of cement=3.1

Engineering Information

ESTIMATING QUANTITIES OF CEMENT, FINE AGGREGATE 100 Cu. feet Compact Assumption-Voids in sand 40% broken				
Nominal mix Cement Fine Aggregate Coarse Aggregate		Water		
		Water/ Cement Ratio (by weight) for Minimum Consistency	In Gallons per bag	
1	1	—	25	2.8
1	1, 1/2	—	28	3.1
1	2	—	30	3.3
1	2, 1/2	—	35	3.9
1	3	—	40	4.4
1	4	—	53	5.9
1	6	—	70	7.8
1	8	—	90	10.0
1	1	2	30	3.3
1	1, 1/2	3	42	4.7
1	1, 2/3	3 1/2	48	5.3
1	2	2	42	4.7
1	2	3	50	5.5
1	2	3 1/2	53	5.9
1	2	4	55	6.1
1	2	3 1/2	55	6.1
1	2, 1/2	3 1/2	57	6.3
1	2, 1/4	4	60	6.6
1	2, 1/2	5	65	7.2
1	3	4	65	7.2
1	3	5	69	7.7
1	3	6	75	8.3
1	4	8	95	10.5

1. Also known as 1:2:4 1:2:2:4
No allowance made in table for waste.

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QUANTITIES OF CEMENT, FINE AGGREGATE AND COARSE AGGREGATE REQUIRED FOR Mortar or concrete. 1 Stone 45% specific Gravity of Cement = 3.1			
Cement in Bags	Sand Dry Cu. ft.	Fine Aggregate	
		Sand moist (Bulking) 20% Cu. ft.	Coarse Age: (Broken Stone) Cu. ft.
07.5	69.0	82.8	—
46.5	84.0	101.0	—
39.5	94.0	113.0	—
33.5	100.0	120.0	—
29.0	105.0	126.0	—
22.8	110.0	132.0	—
16.3	118.0	142.0	—
12.7	122.0	147.0	—
31.9	38.4	46.1	76.4
22.9	41.2	49.5	82.4
20.6	41.2	49.5	82.4
24.5	59.2	70.8	59.0
20.5	49.2	59.0	73.8
19.0	46.1	55.5	79.8
17.75	42.7	51.2	85.4
18.25	49.3	59.2	76.7
17.55	52.6	63.1	73.8
16.5	49.5	59.5	79.2
14.7	44.0	52.9	88.0
15.35	52.2	66.2	73.8
13.35	49.6	59.5	82.6
12.50	44.9	53.9	89.8
9.60	46.1	55.5	92.2

1. For gravel aggregate decrease cement by 5% fine aggregate by 2 cu. ft. and coarse aggregate in proportion to fine aggregate as gives in the mix.

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