# Engineering Information

## Material Required for Plastering 100SQ.FT. Of Surface with Varying Thickness of Mortar

## C=cement in bags (based on loose cement weighting 9292 1bs.per cu.sf)

## F.A.=fine aggregate(sand) in cu.ft.in dry state



### QUANTITIES OF MATERIALS REQUIRED FOR MORTAR AND CONCRETE

MORTAR:

1. Cu. ft. of Loose Portland Cement plus 0.36 Cu. Ft. (=2.25 gallons) of water gives 0.835 cu. ft of neat Cement Mortar.
1. Cu. ft. Loose Cement will cover approximately:
10. Sq. ft. 1" Thick mixed Neat
17. Sq. Ft. 1" Thick mixed with 1 c. ft. of sand.
25. Sq. Ft. 1" Thick mixed with 2 c. ft. of sand.
34. Sq. Ft. 1" Thick mixed with 3 c. ft. of sand.

For Plastering on rick work one cu. ft. extra mortar per 100 sq. ft. is required to fill the insequalities and joints,

For back work masonry about 30 cu. ft. cement mortar is required per 100 cu. ft. of masonary with 1 /4" to 3/8 joints including wastage.

For rubble masonry about 50 cu. ft: cement mortar is required per 100 cu. ft. of masonry, including wastage.

CONCRETE

1. Cu. ft. of Loose Portland Cement mixed with sand (80% voids) and broken stone ballast (45% voids) will give unmixed with water about:
3.9 Cu. Ft. Solid Dry Concrete if mixed 1:2:4:
4.7 Cu. Ft. Solid Dry Concrete if mixed 1:2 1/2:5
5.6 Cu. Ft. Solid Dry Concrete if mixed 1:3:6
7.5 Cu. Ft. Solid Dry Concrete if mixed 1:4:8

The Finel Yeild can be calculated by adding to these figures specified Volume of water.





### MATERIALS REQUIRED FOR PLASTERING 100 SQ. FT. OF SURFACE WITH VARYING THICKNESS OF MORTAR

C = Cement in Bags (Based on loose cement weighting 92 1bs. per cu.ft.)
F.A. = Fine Aggregate (Sand) in cu. ft. in dry state

| Mix. : | 1:1 | | 1:1 1/2 | | 1:2 | | 1:1 1/2 | |
|---|---|---|---|---|---|---|---|---|
| Thickness | C. | FA | C. | FA | C. | FA | C. | FA |
| 3/8" | 1.8 | 2.2 | 1.5 | 2.6 | 1.3 | 2.9 | 1.0 | 3.1 |
| 1/2" | 2.4 | 2.9 | 1.9 | 3.5 | 1.7 | 3.9 | 1.4 | 4.2 |
| 3/4" | 3.6 | 4.3 | 2.9 | 5.3 | 2.5 | 5.9 | 2.1 | 6.3 |
| 1" | 4.8 | 5.8 | 3.9 | 7.0 | 3.3 | 7.8 | 2.8 | 8.4 |
| 1 1/4" | 6.0 | 7.2 | 4.8 | 8.8 | 4.1 | 9.8 | 3.5 | 10.4 |
| 1 1/2" | 7.2 | 8.7 | 5.8 | 10.5 | 4.9 | 11.8 | 4.2 | 12.5 |
| 2" | 9.6 | 11.5 | 7.8 | 14.0 | 6.6 | 15.7 | 5.6 | 16.7 |

| Mix. : | 1:1 | | 1:1 1/2 | | 1:2 | | 1:1 1/2 | |
|---|---|---|---|---|---|---|---|---|
| Thickness | C. | FA | C. | FA | C. | FA | C. | FA |
| 3/8" | 0.9 | 3.3 | 9.7 | 3.4 | 0.5 | 3.0 | 0.4 | 3.8 |
| 1/2" | 1.2 | 4.4 | 1.0 | 4.6 | 6.7 | 4.9 | 0.5 | 5.1 |
| 3/4" | 1.8 | 6.6 | 1.4 | 6.9 | 1.0 | 7.4 | 0.8 | 7.7 |
| 1" | 2.4 | 8.8 | 1.2 | 9.2 | 1.4 | 9.8 | 1.1 | 10.2 |
| 1 1/4" | 3.0 | 11.0 | 2.3 | 11.5 | 1.7 | 12.3 | 1.3 | 12.7 |
| 1 1/2" | 3.6 | 13.1 | 2.9 | 13.8 | 2.0 | 14.8 | 1.6 | 15.3 |
| 2" | 4.8 | 17.5 | 3.8 | 18.3 | 2.7 | 19.7 | 2.1 | 20.4 |

No allowance made in table for wastage.