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## Calculating Total Bags of Cement Require for a Unit Area of Plastering

As a Civil Engineer on site, you should be able to know the amount of cement require for plastering a Particular Area covered.

Knowing this will prevent you from running loss. I will explain to you how to calculate the amount of cement require for plastering

We use the following mix ratio below for plastering

Wall plastering = 1:6

Ceiling plastering = 1:4

External wall plastering = 1:4

Internal wall plastering = 1:5

Repair wall plastering = 1:3

All in {Cement: Sand}

**Plastering range i.e. thickness = 12mm – 15mm**

$12\text{mm}/1000 = 0.012\text{m}$

Calculating bags of cement require for  $100\text{m}^2$

Volume of plastering =  $100\text{m}^2 * 0.012\text{m}$   
 $= 1.2\text{m}^3$

Using mix ratio 1:6

Total ratio = 7

Cement ratio =  $1/7$

$= 0.143$

$1.2\text{m}^3 * 0.143 = 0.171\text{m}^3$

Addition of bulk moisture 35%

$0.35 * 0.171\text{m}^3 = 0.06\text{m}^3$

Addition of waste 20%

$0.20 * 0.171\text{m}^3 = 0.034\text{m}^3$

Total =  $0.171\text{m}^3 + 0.06\text{m}^3 + 0.034\text{m}^3$   
 $= 0.265\text{m}^3$

1 bag of cement (density) =  $1440\text{kg}/\text{m}^3$

Weight of cement = 50kg

$= 50/1440 = 0.0347\text{m}^3$

No. of bags of cement =  $0.265/0.0347$

$= 7.67\text{bags}$

**100m<sup>2</sup> area covered = 7.67 bags**

**Xm<sup>2</sup> area covered = 1 bag**

**1 bag of cement will cover 13.04m<sup>2</sup> Area**

Now assuming 50m<sup>2</sup> area is require to be plaster on site. Calculating the amount of cement to be use will be.

**13.04m<sup>2</sup> area covered = 1 bags**

**50m<sup>2</sup> area covered = X bag**

X = 3.83bags

3.83 bags of cement will be require to plaster 50m<sup>2</sup> Area.

**Also Check Out :** [Calculating Total Bags of Cement and Tones of Sand Require in a Particular Volume of Concrete](#)

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