

MIX RATIO



Optimum Mix Ratios:

One measure = one full wheelbarrow except cement = one pocket

- (i) Divide the cost of one cubic metre sand by 16 to get 1 wheelbarrow price and multiply by your mix of choice.
- (ii) Divide the cost of one cubic metre stone by 16 to get 1 wheelbarrow price and multiply by your mix of choice.
- (iii) $\text{Sum} = 3 \times \text{sand} + 2 \times \text{stone} + 1 \text{ bag } 50 \text{ kg cement by } 35 = \text{material cost.}$

The following costings are based on Cape Town material prices:

Sand price per wheelbarrow: R 16, 43; Stone price per wheelbarrow: R 21, 75;
50 kg bag of cement: R 85, 00.

Batch 1: 3 x wheelbarrow sand + one pocket cement = R 6, 11

This mixture achieves roughly 4, 8 MPa strength and produces 22 blocks.

Batch 2: 3 x wheelbarrow sand + 2 wheelbarrow 13mm stone + one pocket
cement = R 5, 06

This mixture achieves roughly 5, 2 MPa and produces 35 blocks.

Batch 3: 2, 5 x wheelbarrow sand + 2, 5 wheelbarrow 13mm stone + one
pocket cement = R 5, 14

This mixture achieves roughly 6, 2 MPa and produces 35 blocks.

Batch 4: 2 x wheelbarrow sand + 2 wheelbarrow 13mm stone + one pocket
cement = R 5, 61

This is the optimum mix ratio to manufacture blocks achieves roughly 7, 6 MPa and produces 28 blocks.