

Vol of 8 cubes = $8 \times 0.15 \times 0.15 \times 0.15 = 0.027$

Vol of 4 cylinders = $3.14 \times 0.15 \times 0.15 \times 0.3 = 0.021$

Total = $0.027 + 0.021 = 0.048$

Total + 30% wastage = $0.048 + 0.048 \times 0.3 = 0.0624 \text{ m}^3$

For 15% silica

Cement = 25.79kg

Water = 11.6064kg

Coarse aggregate = 57.96kg

Fine Aggregate = 42.6816 kg

Silica = 3.8685kg

Final cement = 21.9215

For 30% silica

Cement = 25.79kg

Water = 11.6064kg

Coarse aggregate = 57.96kg

Fine Aggregate = 42.6816 kg

Silica = 7.737kg

Final cement = 18.053kg