

Things Site Engineers Must Know

Minimum thickness of slab is 125 mm.

Water absorption should not be more than 15 %.

Dimension tolerance for cubes + - 2 mm.

Compressive strength of Bricks is 3.5 N /mm²

Maximum Free fall of concrete allowed is 1.50 m.

In soil filling as per IS code for every 100 sqm 3 sample for core cutting test should be taken.

Electrical conduits shall not run in column

Earth work excavation for basement above 3 m should be stepped form

Any back filling shall be compacted 95% of dry density at the optimum moisture content and in layers not more than 200mm for filling above structure and 300 mm for no structure

F soling is specified the soling stones shall be laid at 45° to 60° inclination (and not vertical) with interstices filled with sand or moorum.

A set of cube tests shall be carried out for each 30 cum of concrete / each levels of casting / each batch of cement.

Water cement ratio for different grades of concrete shall not exceed 0.45 for M20 and above and 0.50 For M10 / M15 contractor

For concrete grades M20 and above approved admixture shall be used as per mix design requirements.

Cement shall be stored in dry places on a raised platform about 200mm above floor level and 300mm away from walls. Bags to be stacked not more than 10 bags high in such a manner that it is adequately protected from moisture and contamination.

Samples from fresh concrete shall be taken and at least a set of 6 cubes of 150mm shall be prepared and cured. 3 Cubes each at 7 days and 28 days shall be tested for compressive strength. The test results

should be submitted to engineer for approval. If results are unsatisfactory necessary action/rectification/remedial measures has to be exercised.

Water used for both mixing and curing shall be clean and free from injurious amounts of oils, acids, alkalies, salts, sugar and organic materials or other substances that may be deleterious to concrete or steel. The ph shall be generally between 6 and 8.

Cement shall be tested for its setting.

1. The initial setting time shall not be less than 30 minutes.
2. The final setting time shall not be more than 10 hours.

Slump IS 456

Lightly reinforced 25 – 75 mm

Heavily reinforced 75 – 100 mm

Trench fill (insitu & Tremie) 100 – 150 mm (For Tremie no need of vibrator)

Curing Days Required

Super Sulphate cement : 7 days

Ordinary Portland cement OPC : 10 days

Minerals and Admixture added cement : 14 days

Cube Samples

1 – 5 M³ : 1 No.

6 – 15 M³ : 2 No's

16 – 30 M³ : 3 No's

31 – 50 M³ : 4 No's

Above 50 M³ : 4 + 1 No of addition sample for each 50 M³.

Things Site Engineers Must Know About Reinforcement and Steel Bars

[Check out the Unit Weights and Conversion which will be required on construction site here](#)

We at engineeringcivil.com are thankful to Er Vikrant for submitting this construction site check list which is of great use to all civil engineers.

Source: <http://www.engineeringcivil.com/things-site-engineers-must-know.html>