

MANUFACTURING OF CONCRETE

Introduction

Production of concrete requires meticulous care at every stage
The ingredients of good and bad concrete are same but good rules are not
Observed it may become bad

Manufacturing of concrete includes the following stages

1. Batching
2. Mixing
3. Transporting
4. Placing
5. Compacting
6. Curing
7. Finishing

Batching

The measurement of materials for making concrete is known as batching.

Methods of batching

- Volume batching
- Weigh batching

Volume batching

The required ingredients of conc. Are measured by volume basis

- Volume batching is done by various types of gauge boxes
- The gauge boxes are made with comparatively deeper with narrow surface
- Some times bottomless gauge boxes are used but it should be avoided

Volume batching is not a good practice because of the difficulties it offers to granular material.

Some of the sand in loose condition weighs much less than the same volume of dry compacted soil.

For an important concrete or any small job concrete may be batched by volume.

Weigh batching

It is the correct method of measuring materials for concrete.

Use of weight system in batching ,facilitates accuracy flexibility and simplicity

The different types of weigh batching are there, they are used based on the different situation.

In small works the weighing arrangement consist of two weighing buckets connected to the levers of spring loaded dials which indicates the load,

The weighing buckets are mounted on a central spindle about which they rotate

On large works the weigh bucket type of weighing equipment used ,the materials are fed from the over head storage hopper and it discharges by gravity.

Mixing

Thorough mixing of materials is essential for the production of uniform concrete

The mixing should ensure that the mass becomes homogeneous uniform in color and consistency.

- Types of mixing

Hand mixing

Machine mixing

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