

Lecture 2.10: Methods of Batching, mixing of materials for making fresh concrete - hand mix...

Concrete Technology (DI04006011)

Civil Engineering Department

Lecture Agenda

- 1. Methods of Batching, mixing of materials for making fresh concrete - hand mixing and machine mixing, mixing time.
- 2. Summary and Q&A

2.3 Methods of Batching, mixing of materials...

- Volume Batching: Less accurate, prone to bulking of sand errors. Weight Batching: Highly recommended, accurate.
- Hand Mixing: Used for small jobs; requires 10% extra cement to compensate for poor mixing.
- Machine Mixing: Uses pan or drum mixers; produces uniform concrete efficiently.
- Mixing Time: Typically 1.5 to 2.5 minutes; over-mixing can cause aggregate breakdown or loss of workability.
- Sequence of charging: Coarse aggregate, fine aggregate, cement, and then water.

Summary

- Recap of the specific material properties and methods discussed.
- Always refer back to the standard IS codes for parameter limits.