

Lecture 2.13: Compaction, importance of compaction, methods - hand compaction, machine comp...

Concrete Technology (DI04006011)

Civil Engineering Department

Lecture Agenda

- 1. Compaction, importance of compaction, methods - hand compaction, machine compaction - various vibrators and other equipments, time of vibration, vibrating techniques and precautions.
- 2. Summary and Q&A

2.6 Compaction, importance of compaction, me...

- Compaction expels entrapped air; 5% air voids can reduce strength by up to 30%.
- Hand compaction: Rodding, tamping, or ramming used for high slump mixes.
- Internal Vibrators (Needle): Immersed directly into concrete; highly effective.
- Form Vibrators (External): Attached to formwork; used for thin walls or heavily reinforced sections.
- Precautions: Do not over-vibrate (causes segregation); withdraw the needle slowly.

Summary

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