

Lecture 6.40: Deterioration of concrete, types, causes and prevention.

Concrete Technology (DI04006011)

Civil Engineering Department

Lecture Agenda

- 1. Deterioration of concrete, types, causes and prevention.
- 2. Summary and Q&A

6.2 Deterioration of concrete, types, causes...

- Types of deterioration: Cracking, spalling, delamination, scaling, and honeycomb.
- Causes: Overloading, foundation settlement, fire damage, chemical attack, weathering.
- Physical causes: Freeze-thaw cycles, thermal expansion/contraction, abrasion.
- Prevention: Use of low w/c ratio, adequate cover thickness, proper compaction, and curing.
- Applying protective coatings or sealers can significantly delay surface deterioration.

Summary

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