

Lecture 1.5: Various Grades and types of cements for different site conditions and its pro...

Concrete Technology (DI04006011)

Civil Engineering Department

Lecture Agenda

- 1. Various Grades and types of cements for different site conditions and its properties.
- 2. Summary and Q&A

1.6 Various Grades and types of cements for ...

Definition

Cement is classified by its 28-day compressive strength (e.g., Grade 53 = 53 MPa).

- Ordinary Portland Cement (OPC): Grades 33, 43, and 53, used in general construction.
- Rapid Hardening Cement (RHC): Used for early formwork removal and cold weather concreting.
- Sulphate Resisting Cement: Used in marine conditions and soils with high sulphate content.
- Portland Slag Cement (PSC) & Portland Pozzolana Cement (PPC): Eco-friendly, low heat, high durability.
- Low Heat Cement: Used in mass concreting (dams) to prevent thermal cracking.

Summary

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