

Lecture 1.3: Bogue's compounds and its functions

Concrete Technology (DI04006011)

Civil Engineering Department

Lecture Agenda

- 1. Bogue's compounds and its functions
- 2. Summary and Q&A

1.3 Bogue's compounds and its functions

Compound	Function	Percentage
Tricalcium Silicate (C3S)	Early strength & initial set	30-50%
Dicalcium Silicate (C2S)	Ultimate/late strength	20-45%
Tricalcium Aluminate (C3A)	Rapid hydration, high heat	8-12%
Tetracalcium Aluminoferrite (C4AF)	Flux, reduces temp, low strength	6-10%

Key Note

The relative proportion of these four compounds dictates the cement type.

Summary

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