

Lecture 5.35: Special Concrete: Properties, Advantages and limitations of the following typ...

Concrete Technology (DI04006011)

Civil Engineering Department

Lecture Agenda

- 1. Special Concrete: Properties, Advantages and limitations of the following types of Special Concretes Self-Compacting Concrete (SCC), Pervious Concrete, Fiber reinforced concrete, Ready mix concrete, Fly ash concrete, Recycled Aggregate Concrete, High performance Concrete, 3D printed Concrete
- 2. Summary and Q&A

5.2 Special Concrete: Properties, Advantages...

- Self-Compacting Concrete (SCC): Flows under its own weight, no vibration needed; uses superplasticizers and VMA.
- Pervious Concrete: High porosity, allows water to pass through; used in eco-friendly parking lots for groundwater recharge.
- Fiber Reinforced Concrete: Contains steel, glass, or synthetic fibers; vastly improves tensile strength and impact resistance.
- Ready Mix Concrete (RMC): Manufactured in a batching plant and delivered in transit mixers; ensures high quality control.
- Fly Ash / Recycled Aggregate Concrete: Sustainable options that reduce carbon footprint and landfill waste.

Summary

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