

AERO-CRETE

Introduction:

Aerated concrete is made with aggregates, cement, and an expansion agent that causes the fresh mixture to rise like bread dough. In fact, this type of concrete contains 80 percent air. In the factory where it is made, the material is moulded and cut into precisely dimensioned units.

Significance:

Aerated concrete is used for the following purpose

- Partitions for heat insulation because of its low thermal conductivity and weight.
- In fire proofing because of its better fire resistivity.
- Floor construction and light insulation.
- Workability allows accurate cutting, which minimizes the generation of solid waste during use.

Problem Statement:

Students are required to build an AERATED CONCRETE BLOCK using the material provided by the organizing team. The event will be on the spot and you are required to finish it within the given time frame. Students will be judged on the basis of their efficiency, method of preparation and on the spot performance.

Materials Provided:

Fine Aggregate, Coarse Aggregate, Cement, Admixture (Aluminium powder), Moulds (150mm x 150mm x 150mm), Lime and Fly ash.

Aero-Crete Rules:

Event is open to all.

Time Frame: 20 minutes

Teams are required to fill the mould upto 7.5 cm(height) mark.

Team must be of atmost 4 members.

Judging Criteria:

Priority order:

- Density must be less than 1200 kg/m^3
- Height by which the mix expanded.
- Compressive strength of the block.