

**Anjani Portland Cement Ltd** (APCL) is one of the major companies in cement industry in southern India with 1.2 million tonnes per annum production capacity and has become a household name in Andhra Pradesh. The Company was started in the year 1999 and before completion of the first decade, has attained **"Major Cement Industry"** status.

The management at APCL has brought to execution this novel idea of **Mobile Lab - Mobile Concrete Solutions** which consists of different cement testing equipment to test the quality and the strength of cement and concrete at construction sites.

## Equipment in Mobile Lab

# The compressive testing machine

Measures the strength of the concrete used for your construction. The cement is mixed with sand at required proportion as per BIS specifications and is made into cubes. These cubes are then tested in this machine. The cube must be able to withstand BIS specified levels of pressure.

#### Vicat's apparatus

The Vicat's apparatus is used to determine the initial and final setting time of cement. Once the cement is mixed with water, it takes specific time to harden. A minimum time of thirty minutes is setting time specified by the BIS. Maximum and minimum setting time can be found out using this apparatus.

# Non-destructive testing machine

This apparatus tests the strength of the cement used in concrete even after the construction is complete. The apparatus consists of 15mm diameter plunger which is made to rebound on the constructed area. The reading of the bounce back strength of this plunger, determines the strength of the concrete. This will help to carry out the test without disturbing the already constructed structure.

#### Slump cone

The tendency is usually to add more water to cement as it proves easy to work with. But doing this would reduce the strength of cement and harm the structure. The slump cone test determines the optimum amount of water to be added to access the best strength of the cement.











### **Anjani Portland Cement Ltd**

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