



IS 1489 (Part 2): 2015 Portland Pozzolana Cement — Specification

Part 2 – Calcined Clay Based (Fourth Revision)

Cement is one of the most important building materials used in the construction industry. It acts as a binding material to bind together different constituents of concrete because of its adhesive properties. Cement is typically produced at cement manufacturing plants either through dry or wet process. The various constituents of cement include lime, silica, alumina, iron oxide, magnesia, sulphite and alkalies.

Considering the prime importance of cement as the building material, Bureau of Indian Standards (BIS) had formulated standards on 16 different types of cement based on their specific applications.

Portland Pozzolana Cement (Calcined Clay Based) (PPC) is one of the variety of cement which is commonly used. PPC finds applications in dams, retaining walls foundations, concrete pavements etc. While use of PPC in concrete, it is expected the have physical properties during the construction as well as during the life of the structure.

IS 1489 (Part 2) pertains to **Portland Pozzolana Cement (Calcined Clay Based) (PPC)** and covers the requirements such as its manufacture, physical and chemical requirements, packing, storage and marking. **Table 1 of IS 1489 (Part 2)** provides list of requirements for the chemical properties like insoluble residue, magnesia, total sulphur, loss of ignition, chloride and alkali content to ensure long term durability of concrete. Table 2 of IS 1489 (Part 2) provided list of requirements for the physical properties fineness, setting time, compressive strength, soundness and drying shrinkage which help to design the mix of concrete for desired requirements.

Recognizing that cement is a product of mass consumption which needs to be made available to consumers with an assured quality, the government has promulgated the '**Cement' (Quality Control) Order, 2003**. Under the order, all types of cement for which Indian Standards are available have been covered under Mandatory Certification. The ultimate aim of ensuring quality of cement is to produce good quality mortar or concrete.