

ESTABLISHING UNDERSTANDING

How a cement plant works

1 Quarrying and blasting

The raw materials that are used to manufacture cement are blasted from the quarry.

2 Transport

The raw materials are loaded into a dumper.

3 Crushing and transportation

The raw materials, after crushing, are transported to the plant by conveyor. The plant stores the materials before they are homogenized.

4 Raw grinding

The raw materials are very finely ground in order to produce the raw mix.

5 Burning and cooling

The raw mix is preheated before it goes into the kiln, which is heated by a flame that can be as hot as 2,000°C. The raw mix burns at 1,500°C producing clinker which, when it leaves the kiln, is rapidly cooled with air fans. So, the raw mix is burnt to produce clinker: the basic material needed to make cement.

6 Finish grinding

The clinker and the gypsum are very finely ground giving a "pure cement". Other secondary additives and cementitious materials can also be added to make a blended cement.

7 Storage, packing, dispatch

The cement is stored in silos before being dispatched either in bulk or in bags to its final destination.

