

PORTLAND CEMENT

Sharjah Cement Factory Ordinary Portland Cement (OPC) is manufactured to comply with the requirements of BSEN 197-1: 2000 type CEM I Portland cement strength class 42,5N and ASTM C150 – 07 type I

Sharjah Cement Factory OPC is recommended as a general purpose cement for use in concretes, mortars, renders, screed and grouts.

Applications

Ordinary Portland cement (CEMI) is the most commonly used cement for a wide range of applications. These applications cover dry-lean mixes through general purpose ready-mix, to high strength pre-cast and pre-stressed concretes.

Sharjah Cement Factory OPC is suitable for use with a wide range of additives and admixtures to extend the properties and uses of concretes.

Quality

Sharjah Cement Factory OPC is produced using carefully selected raw materials. Strict quality control throughout each stage of the manufacturing process ensures that a consistent final product is achieved. Portland cements are predominantly compounds of calcium silicate and calcium aluminate with a small proportion of gypsum. They are produced by burning or sintering, at a temperature in excess of 1400°C, a finely ground mixture of raw materials which contain predominantly calcium carbonate, aluminium oxide, silica and iron oxide. The cooled clinker formed is ground under controlled conditions with the addition of typically 5% gypsum.

Technical information on the quality of Sharjah Cement Factory OPC (CEMI) is available to customers on request from Sharjah Cement Factory marketing department. Reports of tests providing data on fineness, setting times, soundness, chemical composition including alkali levels and compressive strengths of mortar prisms, are also available on a weekly basis.

Strength

Optimum performance in terms of strength and durability is achieved in concrete when the water/cement ratio is kept as low as possible, consistent with ensuring satisfactory placing and thorough compaction.

Other factors affecting strength include conditions of curing as well as the individual properties of the constituent materials and their proportions in the mix.

The potential strength of any Portland cement based product will only be best developed under saturated conditions. Loss of any water to the surroundings should be guarded against and for a period of at least seven days precautions should be taken to keep the concrete moist and to prevent premature drying. The rate of strength development will depend on ambient conditions and the initial temperature of the mix. At higher temperatures there is increased risk of loss of water by evaporation, cracking caused by thermal stresses and reduced ultimate strength.



