

Cement is made by

Cement

Water

Aggregate.

• The cement used is Portland cement

The type of water is free of organic materials.

- Refers to the minerals that is put into the cement such as sand & gravel.

• 5 types

I normal used for general construction

- this make up to 60% - 80% of the cements volume

II moderate cement

used for general constr. as in large piers & heavy retaining walls.

III high early strength cement cure faster used when early removal of form work is desired

IV. low heat cement generates less heat used in the constr. of massive struct..

V - Sulfate resisting used where resistance to severe sulfate.

• Admixture - these are added to alter the properties.

- the air-entraining agents. it is put ~~in the~~ to increase workability.

- Accelerators effects the setting and strength of a concrete mix.

Slowing the setting down allows more time for placing & working the mix.

- Surface active agents reduces the surface tension of the water in the concrete mix.

- Water reducing agents lowers the water-cement ratio (could use less water) this increase the strength of water.