

Distinguish, differentiate, compare and explain what is the differences between Chemical and Mineral Admixture Concrete are as follow. Comparison and Difference.

Differences between Chemical and Mineral Admixture Concrete

Chemical Admixture – These admixtures have formulated chemical composition and these are used for certain proportions of concrete. They are mainly used to reduce the cost of concrete construction. Chemical compounds are added to concrete in very small amounts for purposes such as entrainment of air, plasticization of fresh concrete mixtures, or control of setting time. Certain admixtures, such as pigments, pumping aids and expansive agents are used only in extremely small quantity and are usually batched by hand in premeasured containers. Chemical admixtures are used in the construction industry for building durable, strong and water-proof structure.

Mineral Admixture – Mineral admixtures are usually added to concrete in large quantity. They can improve the resistance of concrete to thermal cracking, alkali-aggregate expansion, and sulfate attack. Natural pozzolanic material and industrial byproducts, such as fly ash and slag are commonly used mineral admixtures. These admixtures do not have any binding property by themselves but these are reacted with calcium hydroxide liberated on the hydration of cement to produce cementing compound with good binding properties. These are added in a large amount to improve the performance of the concrete and reduce the cost of construction.