ABSTRACT

Concrete plays important role in the construction industry but it has some drawbacks. To overcome this drawbacks the search for durable and sustainable construction materials is the need of time. This leads to the developments of concrete composites in combination of various compounds to be used in many applications in world of cement concrete. A better knowledge of materials behavior, especially in development of highly performing mineral or modified mineral concretes, mortars and grouts. The world of concrete with polymer has been undergoing major researches to enhance the properties of traditional concrete. Both worlds recognize, strive for and accept each other's contribution to the synergic effects that are realized by the combination of classical building materials and polymers.

The hardened properties of waste plastic mix self curing concrete have been studied. A number of concrete mixes were prepared in which sand was partially replaced by waste plastic flakes in varying percentages by volume. Waste plastic mix concrete with superplasticizer was tested at room temperature. Super Absorbent Polymer was used for making self curing property of concrete. Samples were moulded for compressive strength, split tensile strength tests at seven and twenty-eight days. It was found that there is an increase in compressive and split tensile strength, due to partially replacement of sand by waste plastic.