

## ABSTRACT

Proper curing ensures that concrete meets the indented structural and durability requirements. A poorly cured concrete may result in development of early stage cracks due to reduction of internal relative humidity. Self curing is one of the most effective curing techniques that are used in the modern construction industry. Many studies have shown that buildings are a significant contributor to natural resources depletion and environmental emissions. Demolished concretes from buildings has become a great concern in terms of waste disposal. After applying proper recycling techniques, it can be used as an alternative source for normal coarse aggregate which not only will help resolve waste disposal issues but also provide a solution of short supply of normal coarse aggregate for concrete. This research makes an attempt to investigate the performance of self curing concrete with recycled coarse aggregate by evaluating its structural properties in terms of compressive strength and split tensile strength. By using PEG400 (Polyethylene Glycol 400) self curing agents with different curing conditions with different aggregates. Comparative studies were carried out for self curing of recycled coarse aggregate and self curing of normal coarse aggregate. Comparative studies were carried out for water retentively, compressive strength and split tensile and split tensile strength after 7 and 28 days for self cured concretes.