



The Use of Recycled Aggregates in Concrete Blocks

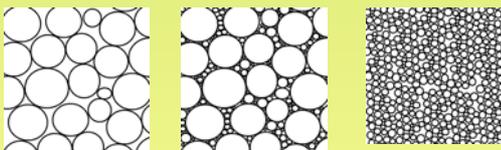
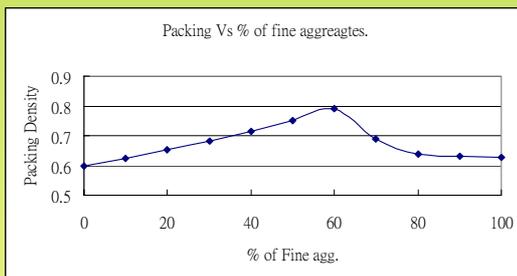
Objectives

- To develop a technique of using recycled aggregates for the production of concrete blocks
- To enhance the properties of the blocks by using the concept of packing density
- To develop a system for removing air pollutants using the paving blocks prepared with recycled aggregates and a photo-catalyst

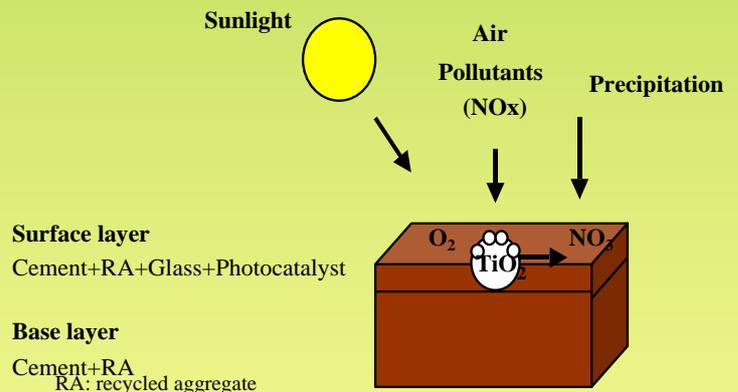


Test Results

Packing Density of Paving Blocks



Air Pollutant Removing Paving Blocks



- A low packing density can lead to poor strength and an undesirable surface texture of the paving blocks
- The optimum packing density can be achieved by using appropriate proportions of coarse and fine aggregates derived from different sources

Conclusions

- It is feasible to produce concrete products such as paving blocks using recycled aggregates
- Combinations of the aggregates of different sizes and sources can produce blocks with optimal properties
- The air pollutant removing paving blocks are able to remove air pollutants such as NO_x via a photo-catalytic reaction