

ABSTRACT

In the present work aggregates from a single source is used. The angularity levels of the aggregates are changed by crushing or polishing. The angle of repose values of crushed, natural and polished aggregates are estimated. The variations of angle of repose due to (i) variation of co-efficient of friction of the floor and (ii) the weight of the aggregate heap are studied. Subsequently an improvement in the method of measurement of angle of repose is suggested. Using this suggested method, angle of repose of aggregates of individual sizes and mixtures of aggregates of different sizes are estimated. Finally, the angle of repose of the aggregate mixes are compared with the strengths of the bituminous mix made out of these aggregate mixes. The strengths of bituminous mixes are measured in terms of the compressive strength and Marshall stability values. The results show good correspondence between the two, indicating a possibility that the angle of repose of aggregate mix (which is a simple and less time consuming task to estimate) can be used to predict the strength of the bituminous mix.