

ABRASION RESISTANCE OF SOME METAMORPHIC
ROCKS FROM SRI LANKA

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It is often required to find the amount of wear of aggregate used in construction work, specially for road development projects. The apparatus called the Los Angeles Machine has been designed by the American Society for Testing and Materials for the determination of abrasion resistance of concrete aggregates and rocks.

Samples from sixteen metamorphic rock types in different localities were collected and applied the method C 131-76 ASTM to measure the abrasion resistance of each rock using the particular equipment.

It is found that the percentage of wear is higher than 50 in marble and garnet-biotite gneiss. Therefore these rocks can be grouped as weak construction materials. Charnockite, highly resisting rock to abrasion (wear=17-20%), is the most suitable rock material for construction works. Percentage of wear of the other rocks are varying from 30-48%. Uniformity factor (UF) is higher than 0.2 for all rocks. It means the hardness of these rocks is not uniform.

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