



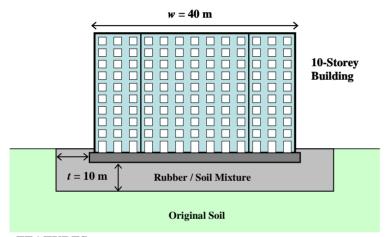
Rubber-Soil CUSHION for Earthquake Protection



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Summary: This paper proposes a promising seismic isolation method particularly suitable for developing countries using rubber-soil mixtures – the CUSHION. Apart from reducing the level of shaking in the horizontal direction, the distinctive advantage of the proposed method is that it also significantly reduces the shaking level in the vertical direction, to which increasing attention has been paid by the earthquake engineering community. The use of scrap tyres as the rubber material can provide an alternative way to consume the huge stockpile of scrap tyres from all over the world. Moreover, the low-cost of this proposed seismic protection scheme can greatly benefit the developing countries where resources and technology are not adequate for earthquake mitigation with well-developed, yet expensive, techniques. The proposed method has been demonstrated through a series of numerical simulations.



FEATURES:

- ~ Reduce 60-70% of horizontal and 80-90% of vertical shakings
- ~ Use of Scrap Tires two million tyres consumed in each project
- ~ Low-Cost particularly suitable for developing countries

Proposed Classification of Seismic Isolation Techniques

