

In this respect, self-centering dissipative high-performance systems,

dynamic actions. During moderate earthquakes the isolated structure acts as absorber of the kinetic energy at the isolation levels, minimizing thus the displacements of the building. During strong earthquakes the effectiveness of the system in further enlarging the period of the building, compared to the classical method of earthquake isolation at a unique level, is achieved with decreased inter-storey deflections, and without introducing extensive displacements at the building base, which are often limited by practical constraints. In parametric studies conducted most effective vertical distributions of earthquake isolation at various storey-levels are proposed, based on multi-criteria analyses of the isolated systems responses.

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