THE RUBBER WALL DAMPER FOR FRAMED STRUCTURES

TECHNOLOGY DESCRIPTION

The technology is rubber wall damper using inventive passive energy dissipation technique which can increase the overall lateral resistance capacity and damping characteristics of building structures.

TECHNOLOGY FEATURES

This rubber wall damper component can be implemented to any structure which is subjected to vibration. It adheres to the safety design criteria and serviceability. This technology is developed with a finite element technique that reinforces concrete buildings equipped with the rubber wall damper system. It also has a finite element program code for non-linear analysis of RC buildings with supplemental wall damper services. Raw material such as rubber is obtained locally to produce this rubber damper and reduces cost. It can be utilized on both new design of earthquake resistance buildings, retrofitting and rehabilitation of existing buildings.

ADVANTAGES

- Adheres to the safety design criteria and prevents human lost
- Ensures social and psychological confidence
- Minimizes structural response subjected to earthquake and diminishes seismic damage of buildings.

INDUSTRY OVERVIEW

Prospects: property developers of high-rise buildings, property owners of civil and industrial structures

Currently, most buildings that are base-isolated are large structures which house sensitive or expensive equipment, but there is increasing interest in using it in public housing, schools, and hospitals, especially in developing countries. A number of base-isolated demonstration projects have already been completed in a variety of countries, from Italy to Chile and Indonesia. In Malaysia, the Federal territory, Kuala Lumpur is the centre for all skyscrapers (buildings exceeding 150 meters or above 12 levels), with 548 of them representing residential, commercial and office buildings. There are currently 878 property developer in Malaysia. Total volume and value of properties transacted in 2013 were 381,130 units with a value of RM152,372.12 billion. Specifically there were 246,225 residential (RM72,060.41 billion); 70,698 Agricultural (RM13,283.43 billion); 34,298 Commercial (RM35,561.94 billion); 8,418 Industrial (RM12,328.57 billion); and 21,455 Development Land (RM9,121,53 billion). The Wall Rubber Damper for Framed Structure is vibration absorbing rubber or wall damper to reduce dynamic load effect and prevent damage to building structure due to concussion caused by natural disaster such as earthquake or vibration.

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