

11. Seismic Observation of Base Isolated Buildings

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Okumura Corporation has performed seismic observations in 12 base isolated buildings in Japan. This paper describes a seismic observation network of the base isolated buildings and an investigation of differences in response characteristic of the building by the type of seismic isolator used and by the property of seismic motion. The monitored natural frequency and damping factor were compared with the values of the design models. The comparison showed that the building in which large deformation of lead rubber bearing was recorded expressed the expected performances assumed while designing. Observations will be continued, and data will be accumulated further to verify the seismic isolation performances of standard and high-damping rubber bearings.

Key words : seismic observation, seismically isolated building, response characteristics, natural frequency, damping