

## Liquefaction Characteristics of Sandy Soils

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In the evaluation of soil liquefaction, both by simplified and advanced methods, clean sand behaviour and liquefaction resistance has been used as a reference. There is evidence from case studies that highly stratified silty sand deposits perform differently from uniform clean sand deposits, and also there are subtle differences in the strain development of silty sands as compared to clean sand observed in the laboratory. This presentation explores some of the characteristics of cyclic behaviour of sandy soils and their liquefaction resistance using observations from laboratory tests and case histories from the 2010-2011 Christchurch earthquakes, as well as advanced effective stress analyses.