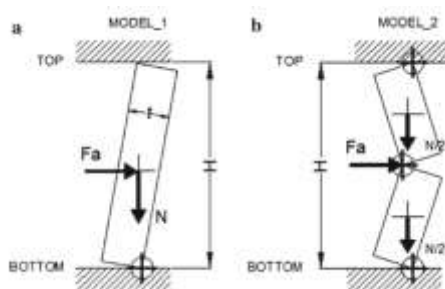


Master Thesis

Improvement of out-of-plane behaviour of partition walls during earthquakes using recycled rubber material

Background

In the scope of a current research project out-of-plane behaviour of masonry partition walls during earthquakes is investigated. Out-of-plane failure is most common way of failure of partitions during earthquakes, and it is induced by acceleration and wall self-weight. In that way, partition walls are acceleration sensitive elements. Excitation in buildings as a consequence of ground acceleration is filtrated by slabs and shear walls. Hence, acceleration and force of partitions on each floor is different, and it is presented with amplification of earthquake loading. As at the moment there are no applicable solutions for better out-of-plane behaviour of masonry partitions, solution with recycled rubber material as a constraint for out-of-plane boundary conditions is introduced and developed.



Aim

The main tasks of this Thesis are numerical and analytical analysis of current approaches for out-of-plane behaviour of masonry partition walls during earthquakes, as well as developing of system based on rubber material which represents constraints for out-of-plane failure.

Contact