

SGW+

Gravity Wall

The program provides the stability and serviceability verifications as well as the verification of the internal stability of a gravity wall made of unreinforced or reinforced concrete.

The gravity wall can have a toe (valley side) and a haunch on the hill or valley side. The base can be inclined.

The ground surface behind the wall can be horizontal or sloped upwards, either continuously or with a polygonal profile. A downwards slope (negative slope) cannot be defined due to the restrictions of the applied calculation method.

The ground can consist of any number of horizontally limited soil layers. An additional soil layer can be defined on the valley side. Stagnant groundwater can be considered as well as different earth pressure situations (e.g. earth pressure due to compaction, increased active earth pressure).

Available standards

You can optionally perform the design in accordance with

- DIN EN 1992-1-1:2015
- ÖNORM EN 1992-1-1:2011

Geotechnical standards

The geotechnical verifications can optionally be based on:

- DIN EN 1997-1:2010 or DIN 1054 in the persistent design situation DS-P
- ÖNORM EN 1997-1: 2013 in the design situation DS-1 in combination with any consequence class

Loads

- Area load, line load and moment acting on the wall crown and the toe
- Horizontal force applying at a freely selectable height to the wall and the toe
- Area load on the ground surface, optionally applying distant to the wall
- Strip load, line load and block load applying at freely selectable positions on the ground surface or inside the soil

Other actions

"Stagnant groundwater" can be taken into account.

