

# GEOLOGY

PRODUCT SHEET





## FS SYSTEM

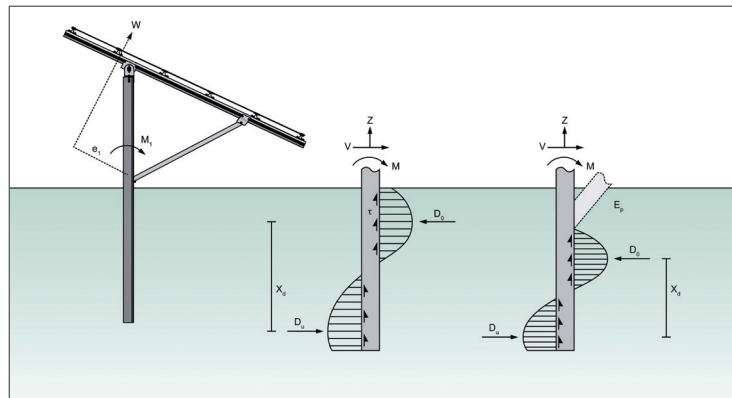
For an outdoor elevation with rammed posts, the building terrain is part of the construction, because it must dissipate the forces working on the system. To ensure the system's safety, a ground survey report regarding the pile foundation is absolutely necessary. For this, load tests are performed directly on the post. The pulled posts reveal the geological layers and allow sampling to determine the probability of corrosion in the soil.

- Angular tensile tests
- Horizontal pressure tests
- Creation of base profiles
- Chemical analysis in the laboratory



## ANGULAR TENSILE TESTS

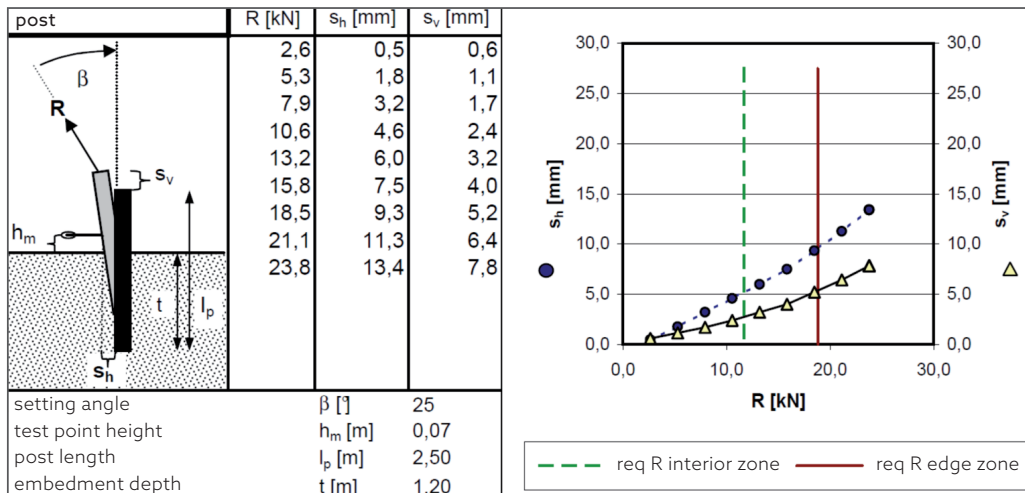
The basic idea of the angular tensile tests is based on the fact that the wind affects the module surface almost perpendicularly. This means that contact pressure from introduction of the bending moment occurs as a pair of forces. The frictional resistance between the post and the soil at a slope greater than  $15^\circ$  is usually much higher than the skin friction, from which high tightening resistance results.



\*Warranty conditions can be viewed at [www.schletter-group.com/AGB](http://www.schletter-group.com/AGB)

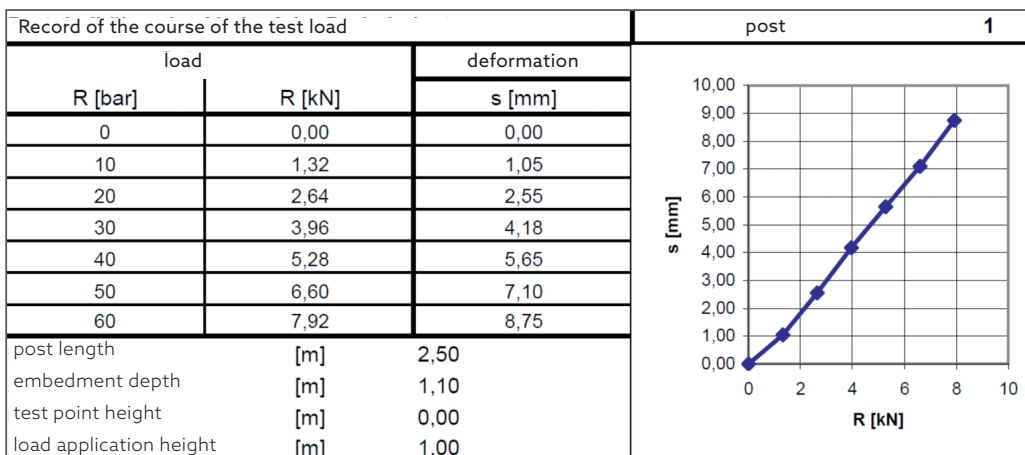


The position of the testing points is based on a planar determination and on special geological situations, such as wet areas. The load is applied to the post based on the modules' slope. The post's distortion behavior is documented during gradual increase of the load. Depending on the distortion behavior, the foundation depths are varied during the test to work out the optimal depth from the statics adapted to the required loads. The homogeneity or variation of the soil determines the denseness of the test points. Different foundation soil behavior causes differentiation in the construction surface in areas with differing penetration depths. If the soil is very weak, the system must have added stabilization.



## HORIZONTAL PRESSURE TESTS

This process is for determining the substrate's subgrade reaction modulus (horizontal compressive strength). Here the posts are pressed against the soil and at various stress levels.



## CREATING SOIL PROFILES

To gain knowledge of the layer structure, the rammed posts are pulled again, and then, using the composition, consistency and color of the opened soil, the individual layers of the penetration core are determined. Using the piling profile, our experienced geologists create the soil parameters of the individual locations. The penetrability of the terrain and the frequency of penetration obstacles are worked out.



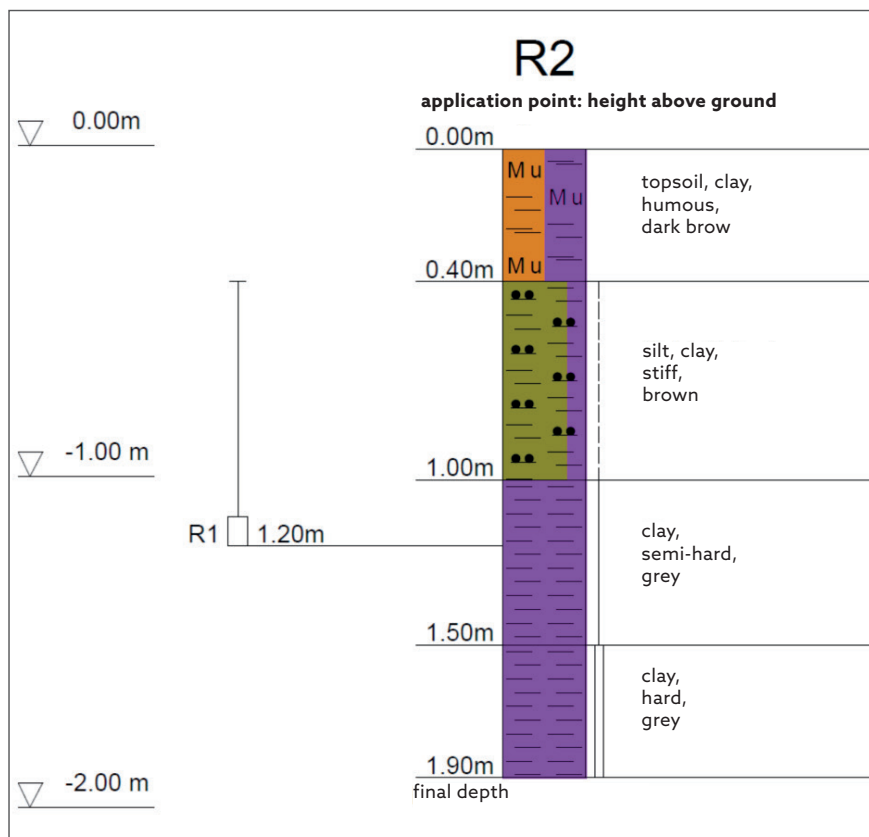
## CHEMICAL INVESTIGATION

When ordinary or galvanized steel is to be placed in the ground, the soil must be tested for corrosion behavior. For this purpose, a representative soil sample is taken from the pulled post. Due to the laboratory processes, the analysis of this sample takes at least seven days. Evaluation of these results allows a precise conclusion on the expected life of the steel foundations in the soil (generally much more than 50 years).



## EVALUATION

The results of these investigations are summarized by representing all the results in a report. Schletter can offer the report in 10 languages with just a click. The customer can now receive the report in several languages, if necessary.



For more information, see [www.schletter-group.com](http://www.schletter-group.com)







The background features a large, curved solar panel with a grid of thin lines, set against a backdrop of overlapping teal and blue triangles. An orange triangle is in the top left corner.

## **SCHLETTER SOLAR GMBH**

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