

Geotechnics



vinyl sheet pile system

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Increased pressure on the hardwood industry, replacement costs and the issue of durability mean that alternative bank protection products are being used much more frequently than they were 10 years ago. One of these alternative products is a plastic sheet pile. Due to its long life, plastic is an excellent alternative to wood.



Installation of Geoflex, Pieterman Volendam, The Netherlands



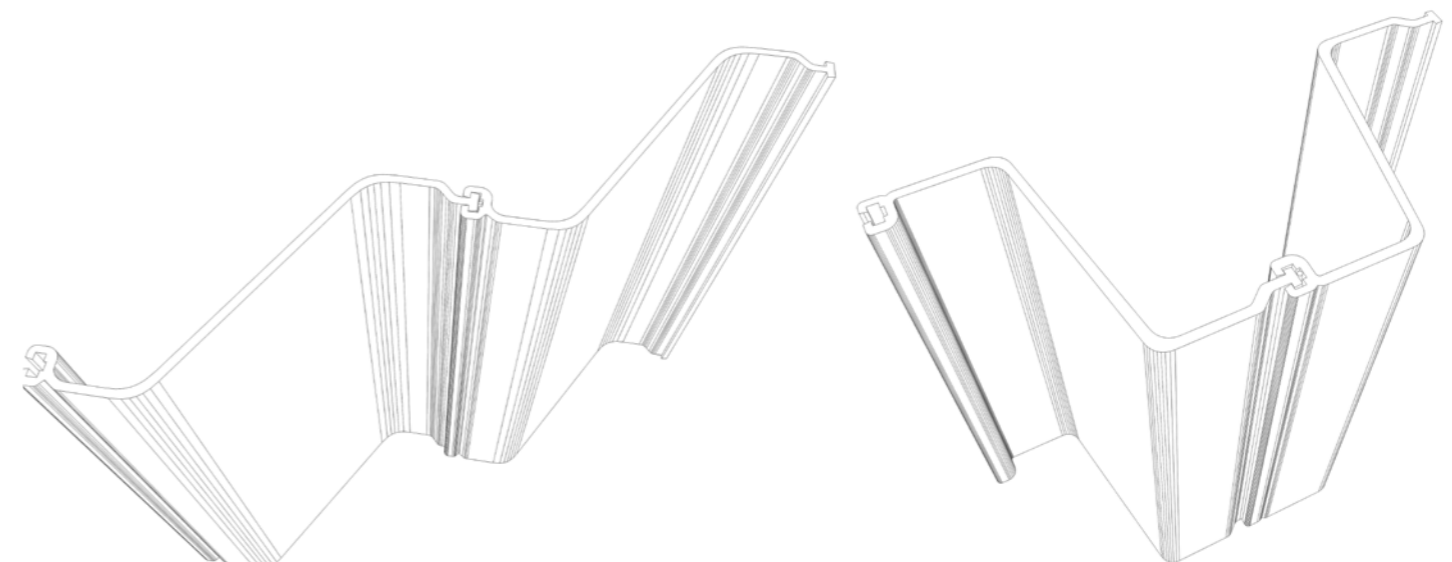
Extrusion of a Geoflex profile

The Geoflex product

Geoflex was developed as a replacement for tropical hard wood in applications such as earth-retaining constructions and bank protection. The aim was to produce an economically viable sheet pile with a long service life. An optimal weight/strength ratio was determined with the aid of computer models. This gave rise to two types of profile: the Geoflex 210 and the Geoflex 420.

Why Geoflex?

Vinyl is a material that has excellent resistance to weathering and possesses a long service life. Furthermore, it is unaffected by natural substances that occur in the soil, rodents and salt and fresh water. This makes it possible to develop bank protection and earth-retaining constructions with a much enhanced service life.





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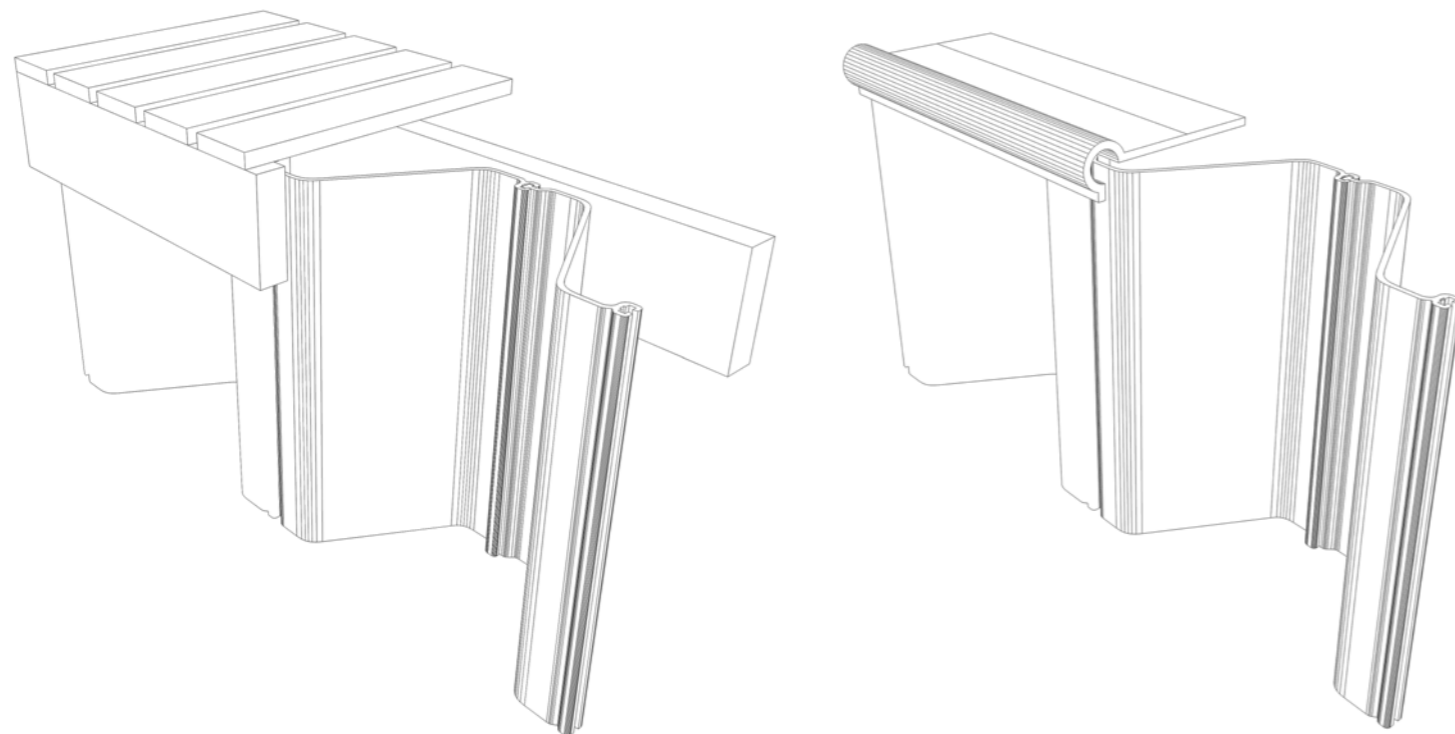
Installation of Geoflex

A Geoflex profile weighs only 3 to 5 kg/m² and thus the 210G (corrugated sheet) weighs only 11 kg/m². It is therefore very easy to handle, even in longer lengths. Before installation, two sheets are assembled to form a 0.5m wide profile.

This provides the following benefits:

- > Low transport costs
- > High production
- > Lightweight installation equipment

Geoflex can be installed by means of a "water jet system", free fall hammer, pneumatic hammer or vibrator, or, if the ground permits, it can be inserted with an excavator. At greater depths or in the case of hard ground, a steel guiding sheet pile is used. Geoflex can easily be combined or connected with other construction materials. The sheets can be glued, welded, sawn or drilled. Wood, concrete, steel or plastic can be used as a cap and wale system. The application of waling with anchoring is also possible.



Applications of Geoflex include:

- > Sheet pile
- > Retaining wall
- > Cutoff
- > Temporary earth retaining wall for cut-off trenches or water retaining wall for excavations

Advantages of Geoflex:

- > Long service life
- > Weather resistant
- > Resistant against rodents
- > Environmentally friendly
- > Simple to install
- > Corrosion resistant
- > Economical



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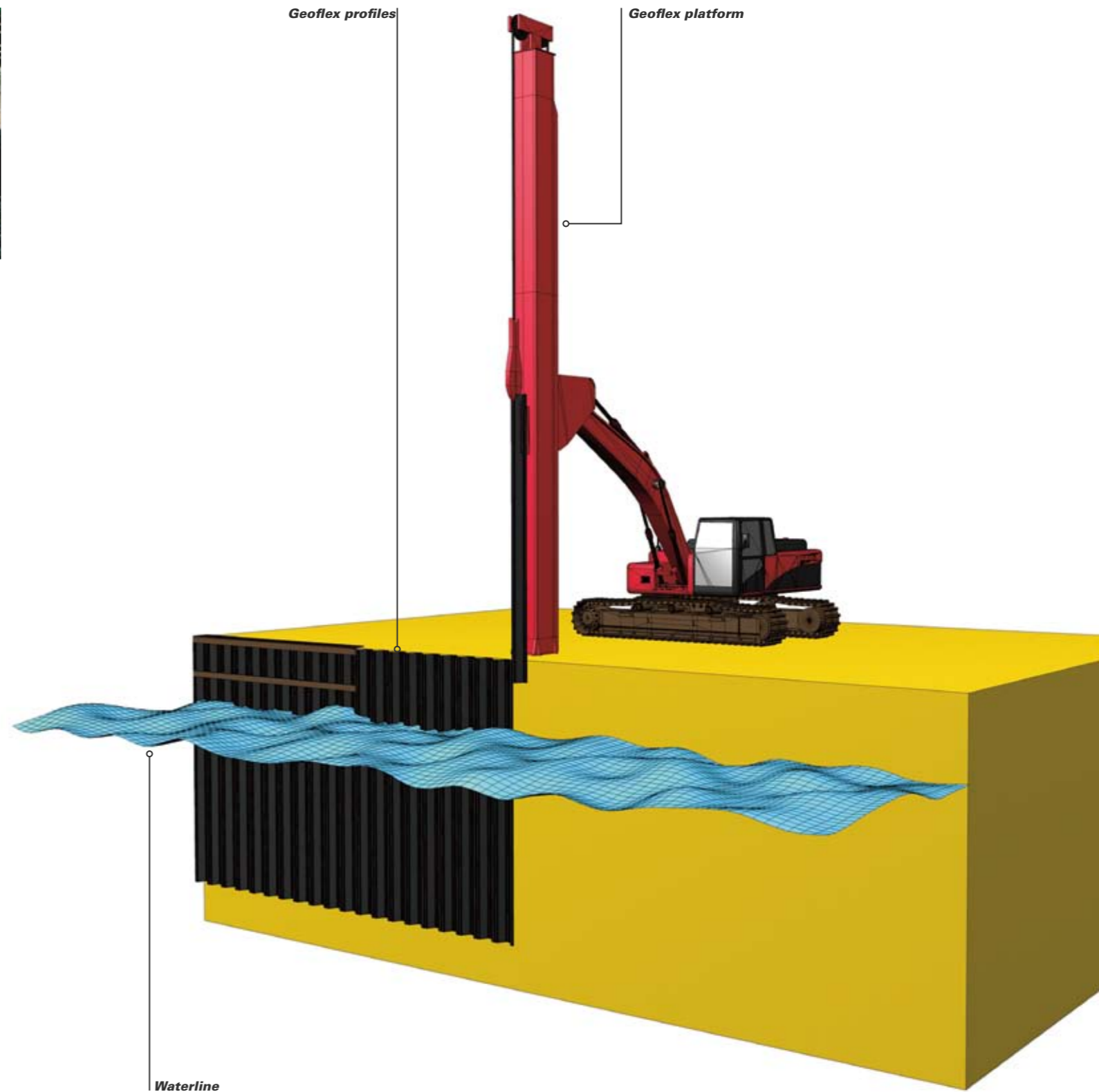
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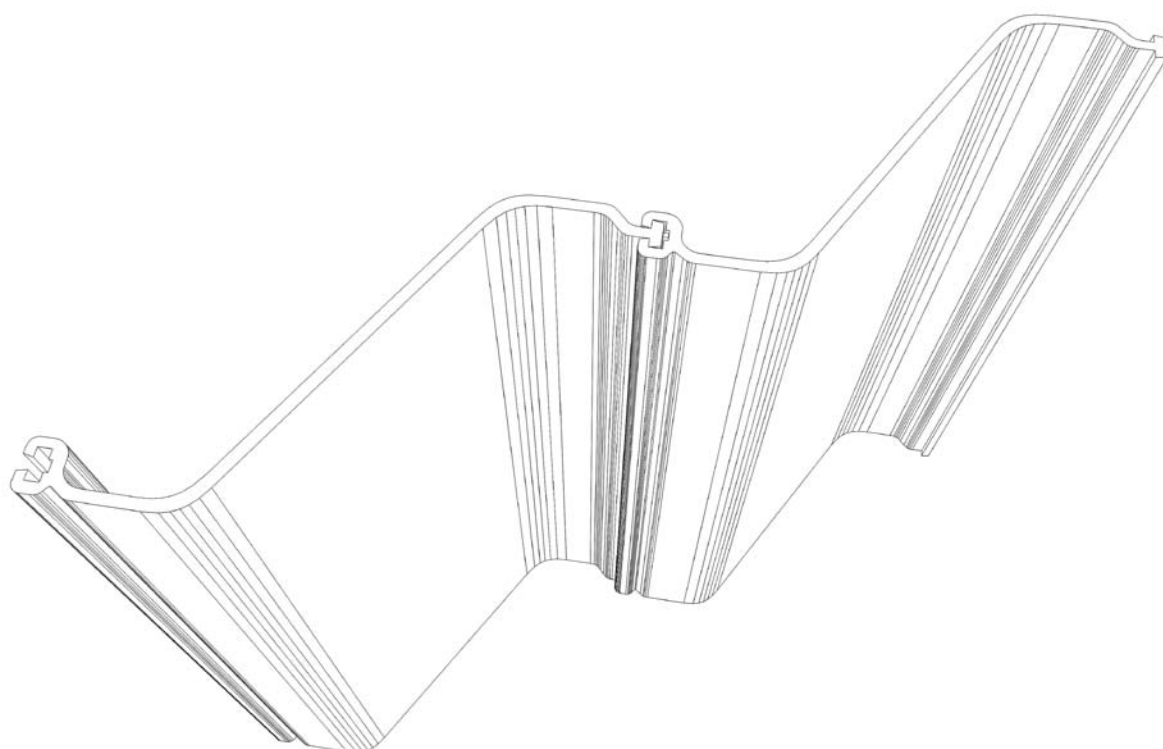
Geotechnics is the production company and commercial enterprise within the Boskalis Cofra Group. Civil engineering is an innovative industrial sector in which developments come thick and fast. New techniques make it possible to attain increasingly better results. Geotechnics has for years played a leading role in this sector. Geotechnics produces and installs plastics for civil engineering and for environmental technology. On the Kwadrantweg in Amsterdam stands a production facility with its own laboratory that was erected and refurbished in 2007. Owing to its many years of experience and geotechnical support, you will find the answers to all your questions about use of MebraDrain and Geoflex can be supplied by Geotechnics.

Other Geotechnics products are:

- > Membranes and geotextiles
- > MebraDrain

You can find more information about Geoflex and other Geotechnics products at the website of our sister company Cofra www.cofra.com under the Geotechnics tab.





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