



With its close proximity to the River Forth, the Black Devon landfill site restoration works was faced with the problem of precipitation percolation – overcome with the specification of Bentofix BFG 5000 from **Naue Geosynthetics**.

The low permeability characteristics of this material, combined with its self-sealing capabilities, made this the ideal choice for what could have been a difficult project.

Its ease of installation characteristics provided added benefits. Up to 30,000m² per week of the material was laid, allowing the project to be finished ahead of schedule.

The installation has helped this former landfill site in Alloa be transformed into a 215,000m² park area for the enjoyment of the local residents.

Bentofix BFG 5000 was laid using a spreader bar, excavator, and just two labourers.

The heavier weight of the material – 300g/m² – and the non-woven needle-punched geotextile on the top side of the Bentofix BFG 5000,



Tales of the Riverbank

provided the increased puncture resistance necessary to cope with the cover materials used on the site.

Bentofix is a needle-punched reinforced geosynthetic clay liner that uses two geotextile layers to encapsulate a filling of natural sodium bentonite clay. Between 2 and 3 million non-woven fibres per m² are punched through the clay mass of the sheet, and fixed into the woven geotextile.

It is this process that produces the composite's inherent strength.

When lengths of Bentofix are overlapped, moisture from the ground

reacts with the sodium bentonite to create a gel seal – eliminating the need for the additional sealing process demanded by other systems.

The needle-punched fibres transmit shear forces through the bentonite core.

Suitable for use as a sealing barrier against liquids and gases in a variety of civil and environmental applications, Bentofix measures about 10mm thick, the liners are typically made from polypropylene resin making them resistant to a wide range of chemicals such as diesel fuel, oil and benzene.