



For the sealing of a base of golf course pond a 30 cm layer of sand bentonite mixture was designed to be placed in Samsung Everland Gapyung Benest Golf course 60 km Northeast of Seoul.

Due to the project deadline, work in cold weather was inevitable. Furthermore heavy snow falls and frequent freezing were expected at the project site area as winter came on. Compaction work for constructing the sand bentonite work in this weather could not be properly done and so the waterproofing could not be guaranteed.

Therefore Bentofix® was proposed by the contractor Shinil EDI and accepted by the project owner.

In this project the following positive aspects have to be pointed out:

- Bentofix® can be easily and quickly installed and there is no need for special equipment;
- Bentofix® can be installed in freezing conditions;
- Bentofix® is an effective barrier and can replace conventional clay liners as well as it can be used to improve the performance of clay liners.

The following cross section of base work was chosen:

- overburden (t=30 cm)
- sand bentonite layer (t=15 cm)
- Bentofix® NSP 4900-4 (t=6,5 mm)

To check the performance of the contractor's work, the pond was filled with water. As can be seen in the above mentioned photograph, no leakage took place, proving the effectiveness of the Bentofix® GCL.

**Year of construction:** 2002-2003

**City / Country:** Samsung Everland Gapyung/ South Korea

**Installed products:**

Bentofix® 4900-4            22,000 sqm



View over the project



Installation of Bentofix®



View over the installation