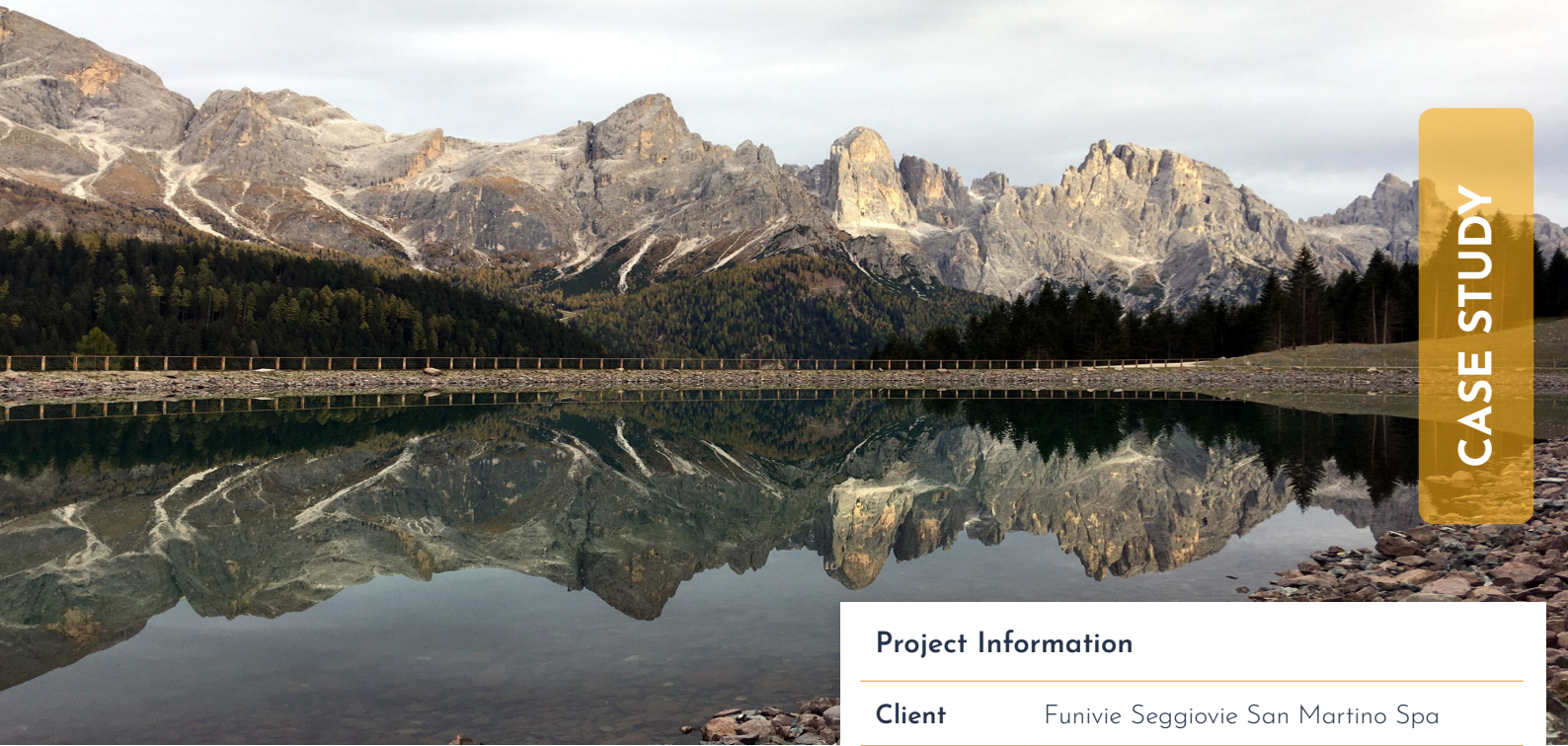


Basin Construction

Groundwater drainage and leak detection beneath snow pond,
Pozidrain, San Martino di Castrozza [TN], Italy



CASE STUDY



Project Description

As part of a project to upgrade ski facilities and to provide more consistent piste conditions in increasingly unpredictable winter weather, Funivie Seggiovie San Martino Spa commissioned the design of a new water basin for the production of artificial snow at the San Martino di Castrozza resort, high in the Italian Alps.

The Challenge

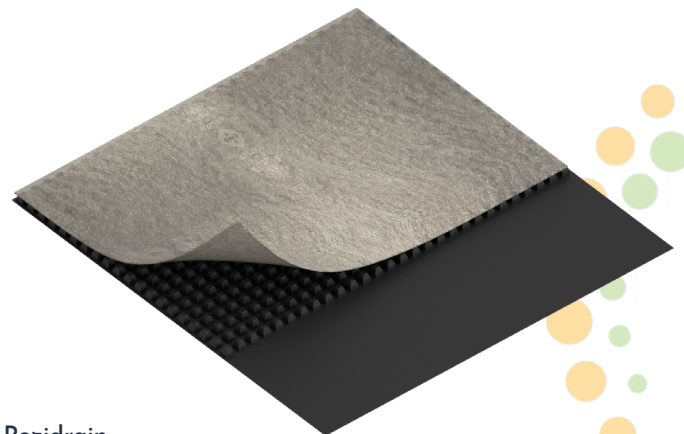
Construction of a basin high on a mountainside meant that groundwater flowing beneath the liner would create an increase in hydrostatic pressure. This could, especially in times when the basin was not full, cause uplift or floating of the lining system that would be detrimental to the serviceability and longevity of the pond. A reliable, low cost and easy to install drainage method was sought to remove this groundwater pressure beneath the liner. The designers, on behalf of the client, also wanted a way to capture and monitor leakage beneath identifiable sections of the liner to decide if and when any remedial repairs may be required.

The Solution

Pozidrain 4SK250/NW8 [L] was laid textile to soil as a groundwater drainage layer. It was chosen to provide a thin and effective water pressure relief membrane, having a flow capacity sufficient to cope with the groundwater conditions expected locally. This version of Pozidrain was

Project Information

| | |
|-------------------|--|
| Client | Funivie Seggiovie San Martino Spa |
| Contractor | Sevis Srl |
| Product | Pozidrain 4SK250/NW8 [L] Pozidrain 4S250/NW8 |
| Quantity | 30,888m ² & 2,970m ² |
| Benefits | <ul style="list-style-type: none">• Thin groundwater drainage layer to reduce uplift pressure on snow pond liner• Drainage layer includes flat selvedge overlap to provide an impermeable, secondary protection layer directly beneath the liner• Easy to transport and fast installation requiring no additional excavation |



Pozidrain
4SK250/NW8 [L]

ABG LTD

E7 Meltham Mills Road, Meltham, Holmfirth, HD9 4DS • +44 (0)1484 852096 • www.abgltd.com

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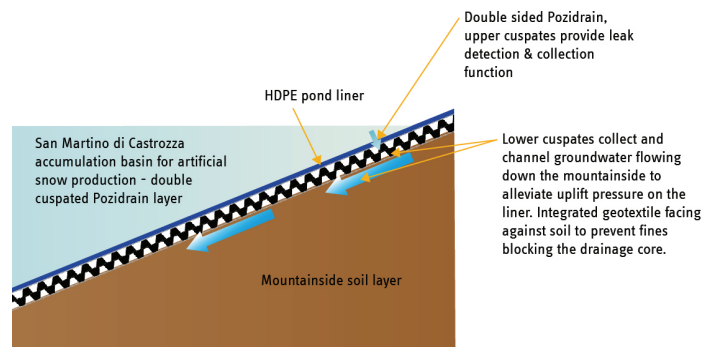


also selected for both its long term creep resistance of up to 250kPa and for resistance to installation loads. The addition of an "L" flat selvedge down one edge of the Pozidrain 4SK250/NW8 [L] rolls enabled a pressure seal between adjacent rolls which assist in preventing leakage from the pond if the liner is damaged. A second layer with textile facing upwards was placed directly underneath the liner, back to back with the first, to provide a leakage collection, drainage and monitoring layer. The double layer was only required on the slopes facing the mountainside for groundwater pressure relief (see function diagram on the right). On the valley side, a single layer for leakage collection was installed.

One truck of Pozidrain provides the drainage capacity of >300 trucks of drainage stone. This was easier to transport up the mountain, required less excavation and therefore provided a more efficient drainage solution.



Dual layer of Pozidrain 4SK250/NW8 installed back-to-back to provide groundwater drainage & leak detection functions



Dual layer of Pozidrain 4SK250/NW8 installed back-to-back to provide groundwater drainage & leak detection functions

The ABG Service

Distributed through Huesker Srl, Italy, ABG were able to support with test results, installation instructions and on-time delivery.



The completed accumulation basin at the foot of the Ces Valcigolera ski run, San Martino di Castrozza

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