



Image source: [www.seeblick-wilen.ch](http://www.seeblick-wilen.ch)

## Project report

### GERO<sup>®</sup>therm<sup>®</sup> DUPLEX-REX geothermal probes

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"Seeblick Wilen" residential development  
Endlosenstrasse 2/4/6, 6060 Sarnen



The Seeblick Wilen residential development comprises 22 apartments of different sizes and configurations, offering quiet and tasteful living accommodation for families, couples and singles. Photovoltaic systems are being installed on the roofs of the individual apartment buildings.

Communal areas in the buildings include drying rooms and bike storage rooms. Besides the basement rooms allocated to the apartments, there are additional recreational rooms and storerooms. The underground car park has a total of 39 parking spaces with the option of installing an e-charging

station. An integrated photovoltaic system ensures clean energy and low electricity costs, while a geothermal-probe heat pump provides efficient and environmentally friendly heating.



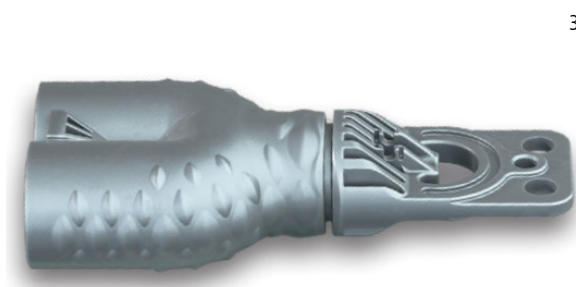


1. Building facade (image source: [www.seeblick-wilen.ch](http://www.seeblick-wilen.ch))
2. Photo of Seeblick Wilen construction site (image source: HakaGerodur AG)
3. Probe foot with vapour-deposited metallic film layer and protective lacquer coating (image source: HakaGerodur AG)
4. Structure of the GEROtherm®-REX pipe (image source: HakaGerodur AG)
5. Supplied geothermal probes on a pallet (image source: HakaGerodur AG)
6. A drilling rig in use (image source: HakaGerodur AG)

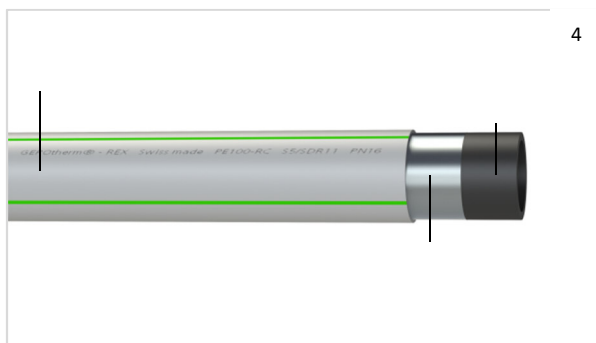
Fifteen GEROtherm® DUPLEX-REX geothermal probes have been installed to 90 metres. The GEROtherm® DUPLEX-REX probes were selected for this purpose due to the geology and the presence of gas. The company

Bohrfix Erdsonden AG, which specialises in boreholes for geothermal probes, was on site for the professional drilling of the boreholes. The boreholes were then backfilled. Each geothermal probe was tested using a measuring

device for pressure and flow tests (in accordance with standard SIA 384/6 of the Swiss Society of Engineers and Architects) and the results were recorded.



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The diffusion-resistant GEROtherm® DUPLEX-REX geothermal probe prevents gaseous substances from penetrating into the heat carrier. GEROtherm® DUPLEX-REX thereby guarantees the correct operation of the heat pump and protects it against damage caused by degassing. The core pipe, which carries the medium, is made of state-of-the-art

crack-resistant PE100-RC, and is certified and monitored by SKZ and KIWA KOMO. The pipe's diffusion resistance is achieved by using a polymer-matrix film with an integral diffusion barrier. It also features a scratch-resistant protective jacket for mechanical protection. The diffusion barrier on the tried-and-tested HakaGerodur probe foot is provided by a vapour-deposited

metallic film layer. The additional protective lacquer coating provides a high level of abrasion resistance. The geothermal probe is compatible with the products from the GEROtherm® system range and guarantees long durability on account of its good corrosion and chemical resistance. This innovation is patented; patent no. EU 3 450 878.



## Project details

### Construction site



"Seeblick Wilen" residential development  
Endlosenstrasse 2/4/6  
6060 Sarnen  
[www.seeblick-wilen.ch](http://www.seeblick-wilen.ch)

### Client

Rammelmeyer Immobilien AG  
Wilerstrasse 100  
6062 Wilen (Sarnen)

### Architect

**Burch  
und  
Partner**

Burch und Partner Architekten AG  
Industriestrasse 4  
6060 Sarnen  
[www.burch-partner.ch](http://www.burch-partner.ch)

### Drilling company



Bohrfix Erdsonden AG  
Altgraben 6  
4624 Härkingen  
[www.bohrfix.ch](http://www.bohrfix.ch)

### Products used

- 15× GEROtherm® DUPLEX-REX diffusion-resistant geothermal probe PE100-RC, 40 × 3.7 mm, length 90 metres, S5 SDR11 PN16, length 90 metres
- 15× grouting tube, de 25 mm, length 92 metres
- 15× GEROtherm® initial weight 15 kg cast iron, for geothermal probes 32–43 mm



**HakaGerodur**

HakaGerodur AG  
Giessenstrasse 3  
8717 Benken, Switzerland  
T +41 (0) 55 293 25 25  
[verkauf\\_ews@hakagerodur.ch](mailto:verkauf_ews@hakagerodur.ch)  
[www.hakagerodur.ch](http://www.hakagerodur.ch)