



REHAU GEOTHERMAL SYSTEMS

NAVARINO DUNES HOLIDAY RESORT, GREECE

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Project

Heating and Cooling of a holiday resort using ground-source energy.

Requirements

In the Greek region of Messinia, a new holiday resort was built. This consisted of a luxury hotel, associated holiday homes and a golf course. To reduce the running costs of the energy demands, it was decided that renewable energy should be exploited, in this case, ground-source energy.



Solution

Due to integration of a golf course on the resort, there was enough space on

the site to use Geothermal collectors to support the heating and cooling demands. With the help of REHAU, a proposed system was put forward that required 130km of pipe work being installed.

It was decided that REHAU RAUGEO collect PE-Xa 25 x 2.3 was the most suitable pipe for the project. Cross-linked polyethylene (PE-Xa) has excellent physical properties, in particular, resistance to point loading and other impacts, such as notches or grooves.

PE pipes need to be backfilled with a sand bed to prevent this. Therefore, using PE-Xa allows the pipes to be buried in the excavated material, reducing installation costs and time. This also has the added benefit of increasing the output of the collectors as the excavated ground typically has better thermal properties than a sand bed.

The RAUGEO system was complemented by 130 RAUGEO industrial manifolds, on which 10 circuits can be connected to each one.

As the time window of the whole site was very tight, all the collector pipe and manifolds were supplied and installed within 6 weeks.



REHAU systems:
RAUGEO collect PE-Xa
RAUGEO industrial manifolds

Developer: Temes SA

Geothermal Consultant:
Renewable Practices Ltd.

Main contractor: Aktor S.A, Athens

Geothermal Installer:
Technek – Kalathakis

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