ARVOR APARTMENTS

PROJECT DETAILS

Client:	Rowe Holdings
Location:	Maenporth, Cornwall, England, UK
Completion Date:	November 2009
Contract Scope:	Design, Supply, Installation
Applications:	Underfloor heating
Technology:	nVent RAYCHEM T2Red and T2Reflecta systems with QuickStat-TC thermostats

KEY CHALLENGES

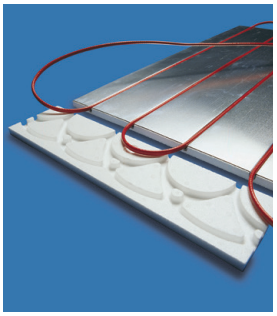
Built on the site of the former Westbay Hotel in a seaside location, the Arvor Apartments is an exclusive residential development of high specification properties. With no gas supply available to the site, Rowe Property Developments was seeking a high quality electric solution to comfort heating throughout the development. With large sea-view windows reaching floor to ceiling giving extensive solar gains and a high quality solid wood flooring, a system had to be selected that would not overheat the temperature sensitive floor covering.

SOLUTION

Consulting engineers SJH Design Services, working in conjunction with the architects and nVent, chose the top-of-the-range RAYCHEM self-regulating electric underfloor heating systems to provide the sole heat source.

The system comprised a combination of RAYCHEM T2Red self-regulating heating cables with T2Reflecta plates to provide the ideal blend of reduced heat losses and optimum heat distribution. The T2Red cables provide zone power control by sensing other sources of heat locally along their length and automatically adjusting their output to deliver heat only where it is needed. These self-regulating cables also compensate for solar gains through the large sea-view windows and will not overheat and damage the solid wood flooring which is used extensively throughout the development.

The pre-grooved, thermally insulated, aluminium-covered Reflecta plates minimise heat loss and optimise heat distribution. The system reduces energy consumption by 20% compared with heating cable alone.



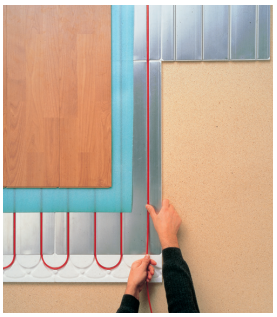
nVent product engineering team provided 2D and 3D designs for each area throughout the development to simplify installation. Some 6 km of T2Red cable was installed with 33 QuickStat electronic thermostats providing programmable control.

PRODUCTS

The RAYCHEM T2Reflecta and T2Red floor heating system consists of an insulated aluminium profile T2Reflecta and the self-regulating T2Red heating cable. It combines the advantages of both elements, resulting in a 20% extra energy saving compared to a T2Red system alone.

The surface of the T2Reflecta plate enables even heat distribution across the floor and, due to its low profile, it is the ideal system for installations where floor to ceiling height is an issue.

T2Red is a self-regulating floor heating cable for low profile installations.Its self-regulating technology means that the cable can be applied under any type of floor surface without a risk on overheating. Simple to design, one heating cable will suit all room shapes, it is compatible with all stable subfloors e.g. concrete, anhydrite, asphalt, plaster, ceramitic subfloor, wooden subfloors (with max. heat transfer resistance 0.15 m2K/W). It is also easy to install, as it can be spliced and crossed without risk of overheating and connected with no cold lead needed. RAYCHEM T2Red has a long life and is maintenance free.



The nVent RAYCHEM QuickStat-TC electronic thermostat is an easy-to-program unit that features multiple temperature control modes and an adaptive functionality that automatically switches the system on to ensure a comfortable floor temperature when it's needed.

BENEFITS

- Excepionally energy efficient
- Compatible with sensitive floor coverings
- Responsive system that compensates for solar gain
- Low profile
- Simple installation
- Maintenance-free system

Arvor Apartments is a high specification development by Rowe Holdings that provides luxury residential accommodation on England's south coast. The development's consulting engineers were SJH Design Services and the UFH systems were supplied via nVent distribution partner Jointing Technologies and installed by Addinalls Electrical.

Reduced heat losses and optimum heat distribution met the quality requirement and high performance criteria demanded for such a luxury development.

North America
Tel +1.800.545.6258
Fax +1.800.527.5703
thermal.info@nvent.com

Europe, Middle East, Africa
Tel +32.16.213.511
Fax +32.16.213.604
thermal.info@nvent.com

Asia Pacific
Tel +86.21.2412.1688
Fax +86.21.5426.3167
cn.thermal.info@nvent.com

Latin America
Tel +1.713.868.4800
Fax +1.713.868.2333
thermal.info@nvent.com