

Microflex

Microflex pre-insulated pipes

Case study: Burenberg





APPLICATION

Watts Microflex system in new residential area.

- **PRODUCT**
Microflex pre-insulated pipes
- **INSTALLER**
Erro Heating
- **PROJECT**
Burenberg
- **LOCATION**
Leuven, Belgium
- **PERIOD**
2025

Introduction

The Burenberg project in Leuven involves the development of a residential complex a short distance from the city centre, located in a green urban area. The site combines urban density with landscape integration, with homes offering views of both the inner-city greenery and the Leuven skyline. The aim for the technical infrastructure is to achieve a sustainable and efficient energy supply. In this context, Microflex is used for the distribution of heating and, where necessary, cooling water between the central installation and the individual residential units. The flexible, pre-insulated piping system enables fast and reliable installation within the compact urban fabric, with minimal heat loss and a high degree of installation flexibility. The project illustrates the commitment to energy efficiency and sustainable heat supply within urban redevelopment zones, combining comfort for residents with a future-oriented technical infrastructure.

Project description

Burenberg is a versatile neighbourhood that caters to the needs of various target groups. The project includes:

- 127 apartments
- 16 ground-level homes
- 15 social housing units
- 67 student rooms
- 29 co-living rooms
- 46 residential care rooms and 27 assisted living apartments in the residential care centre
- 21 rooms for sheltered housing in the former monastery building
- Offices and catering space (including in the authentic chapel)
- 230 underground parking spaces and 150 storage rooms

The total area of the site is approximately 18,500 m², with a gross floor area of approximately 29,500 m². The investment value is estimated at over 100 million euros.



Burenberg places a strong emphasis on sustainability. The project aims to be energy neutral, with facilities such as solar panels and a geothermal heating network, allowing the neighbourhood to be heated without fossil fuels. A striking feature is the central park garden of 4,600 m², which serves as a green oasis and is accessible to all residents of Leuven.

Challenges and solutions

The renovation of the old monastery building within the Burenberg project presented the construction team with a double challenge:

- preserving the historical character of the heritage building
- and integrating a future-proof, energy-efficient heating and cooling system.

As the building will serve a semi-residential care function (including rooms for sheltered housing), a reliable and sustainable energy supply is crucial.

In order to provide the various wings of the old monastery with heating and hot water, it was decided to create an underground route through the monastery's central courtyard. The pre-insulated pipes from Watts Microflex were used to distribute the heating and hot water from the technical room. The Microflex system was the ideal solution here due to the flexibility of the pipe and the various pipe diameters and accessories available for creating all the underground branches. The pipe diameters were calculated by the engineering firm and a route was mapped out in consultation with installation company Erro Heating. Watts supplied a detailed list of materials for the Microflex system so that the plasterers could easily collect the right materials for each branch on site.

Conclusion

The choice of Watts Microflex in the old monastery building in Burenberg demonstrates how innovative technologies can be used in a heritage context without compromising on comfort, energy efficiency or aesthetics. It is a fine example of how technology and heritage can merge in a forward-looking narrative.





Watts

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