



**Polybutene**  
Piping Systems Association

## Case Study

Nieuwe Wipwel District Energy, NL



Thermaflex | Flexalen



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Fourth generation district heating using recycled heat from a waste processing plant to secure sustainable comfort for local residents was installed by PBPSA member Thermaflex using their Flexalen piping system comprising insulated pipes made from Polybutene-1. Together with their partners Duurzaam Energiebedrijf Roosendaal, BAM Infra Nederland and SUEZ, Thermaflex demonstrated that the transition to sustainable energy at optimal levels of comfort and lower energy bills is a challenge that can easily be handled collectively with innovative, and highly scalable concepts.



### **4th Generation DHC – using waste heat for the sustainable comfort of Roosendaal residents utilizing prefabricated networks.**

Already, this has cut the college's energy bill by 50%. The connection of the new residential quarters to this unique district heating network marks an important milestone: heating individual homes based on the only low-temperature district network in the Netherlands. By using low temperature (LT) waste heat, heat loss is significantly lower while ensuring a much higher thermal energy yield. In this way, sustainability and comfort go hand in hand.

In order to minimize disturbance for current residents, the partners took up the challenge to implement the entire network within 3 weeks, while at the same time securing a future-proof solution. This was implemented through a collaboration between Thermaflex (knowledge partner and specialist in the development and production of prefabricated distribution networks) and BAM Infra (expert in infrastructure and network installation). The Cradle to Cradle Certified™ Silver Flexalen piping system made from Polybutene-1 piping, delivered with plug-and-play Flexalink house connections proved to be the ideal solution for this project.



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The expertise and structured approach by BAM also proved to be highly effective in the rapid installation of a reliable Low Temperature (LT) network, whereby disturbance to the local environment was kept to a minimum.

For Roosendaal, this is only a start. Of the 60 MWh waste heat capacity of the processing plant, only 5 MWh has been exploited. The success of this network expansion affirms the potential to expand it in the near future. Not only in the Netherlands, but all over the world waste heat offers a much better alternative to conventional gas-fired heating and is abundantly available globally.

With these types of innovative and highly scalable concepts, Thermaflex and its partners demonstrate that the transition to sustainable energy while assuring optimal levels of comfort at lower energy bills is a challenge that can be easily handle collectively.

“ A Smart Climate Grid uses clean waste heat of 42°C from a waste processing plant. Energy that would otherwise be lost. ”



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