



Polybutene
Piping Systems Association

Case Study

Permatopia District Energy, DK



Thermafex | Flexalen



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The Permatopia eco-village is rolling out a sustainable future with Flexalen prefabricated networks using insulated Polybutene-1 piping.

Just south of Copenhagen in Karise Denmark, Permatopia, a bold and visionary combination of residences and farm set in a scenic surrounding is currently under construction. Permatopia comprises 90 terraced houses, a farm and utilities, and is designed according to the principles of Permaculture: renewable energy, a circular economy and self-sufficiency.



The entire area of the Permatopia estate is serviced with geothermal heat. The geothermal heat pump will be powered by a wind turbine and connected to a heat accumulator to enable the inhabitants to enjoy hot water from the tap on command.

The pre-insulated Polybutene-1 piping solution by Thermaflex is installed to transport both heating water as well as domestic hot water. The PB-1 system is Cradle to Cradle Certified™, meaning no materials used in the production are harmful for the environment and the valuable raw materials can easily be harnessed for subsequent re-use.

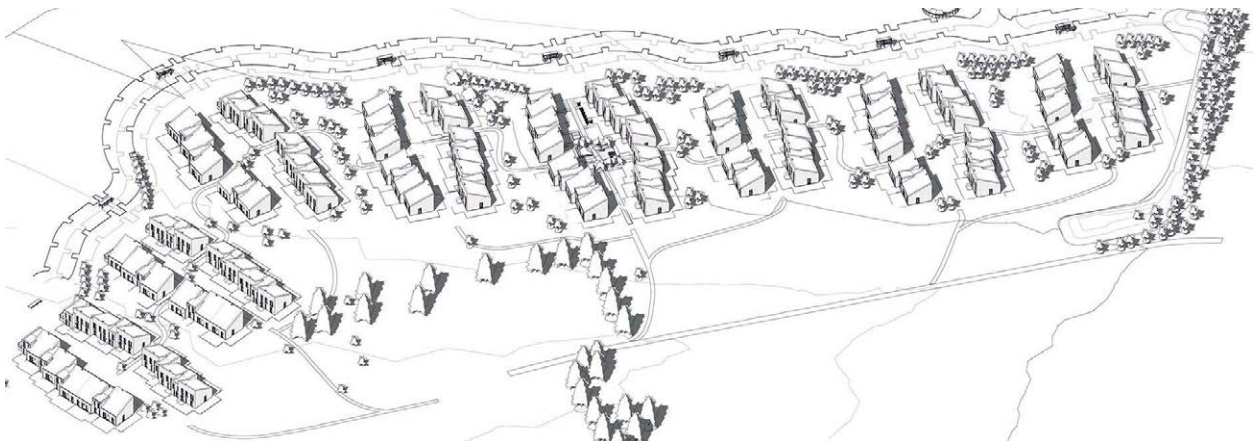
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Future residents such as Kaj Hansen value the choice of circular materials. He commented: "It is important to conserve the limited resources of our planet, and think of the future generations to come."

The plug-and-play Flexalink house connections were delivered to the project in numbered packages corresponding to the house numbers for swift and easy deployment. The lightweight Flexalen system made from Polybutene-1 needs fewer welds on-site, with less excavation required than traditional piping materials.

According to Steven Zoega, from installer John Jensen VVS: "It's flexible, easy, and the system is tailor-made and pre-assembled. It makes our job much easier and as a result we save a lot of time. This creates a better working environment for us with less back injuries and with the rapid installation, less time is required on site."

With these robust and easily applicable solutions, Thermaflex and John Jensen VVS demonstrate that we can collectively make the transition to sustainable energy, while at the same time assuring optimal levels of comfort and lower energy bills!



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