



Polybutene
Piping Systems Association

Case Study

New Farmhouse - West Yorkshire, UK



Wavin I Hep₂O



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Wavin | Hep₂O



At New York Farm in West Yorkshire, UK, a comprehensive Hep₂O Polybutene-1 underfloor heating system from Wavin has been installed throughout a new-build farmhouse to provide cost-effective and efficient heat distribution and exceptional thermal performance. The high performance heating system helped the new farmhouse to achieve Level 4 in the Code for Sustainable Homes.

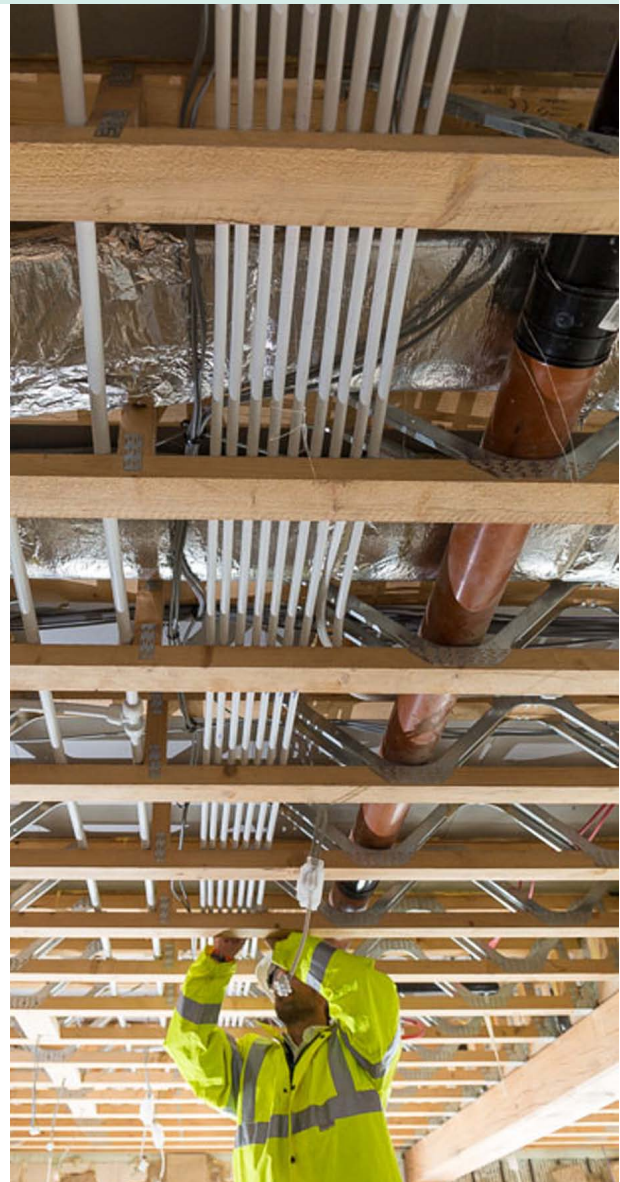
High performance required for Level 4 in the Code for Sustainable Homes

Located four miles south of Harrogate, the New York Farm re-development includes a new highly-insulated two-storey farmhouse. When developer Geoff Mountain demolished an ageing structure to begin construction of a new 560m² residential building, he required a high performance and flexible heating system that would help the new farmhouse to achieve Level 4 in the Code for Sustainable Homes.

“I have been using Hep₂O Polybutene-1 underfloor heating systems for a number of years,” commented Geoff Mountain. “When combined with the other energy efficiency initiatives in place, it has helped the building to achieve the performance required and ensured a very low energy requirement of just 13-15 kWh for heating.

Combination of high comfort levels and low running costs

Built using insulated concrete formwork and with a biomass woodchip boiler, the project’s heating system specification would prove crucial to maintaining these high performance standards. The Hep₂O underfloor heating system



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from Wavin proved ideal, combining high comfort levels and low running costs with a fast, simple and non-intrusive installation.

Comprehensive system using Polybutene-1 piping

Installed throughout the lower ground and ground floors, the Hep₂O underfloor heating system comprises panels, Polybutene-1 piping, manifolds and heating controls. As well as making little difference to the floor depth, they are also lightweight, easy to cut and handle, can withstand point loadings and can be installed by just one person if necessary. Manufactured and Kitemarked to BS EN ISO 21003, and under a Quality Management System which satisfies BS EN ISO 9000 requirements, Hep₂O underfloor heating pipe made from Polybutene-1 is also covered by a 100 year guarantee against defects in material or manufacturing – offering the client total peace of mind

Zoned heating increases efficiency

On the building's first floor, a series of radiators was installed and plumbed into a Hep₂O underfloor heating manifold. This allows the heating to be zoned as individual rooms to improve the system's flexibility, improve internal comfort levels and increase energy efficiency to reduce costs. Completing the plumbing and drainage specification, Wavin also supplied a series of soil and waste systems from its OSMA range.

"As a complete package and system, the Hep₂O system proved the ideal solution for our farmhouse development," added Geoff Mountain. "Throughout the project the back-up support from Wavin, and particularly Andrew Redshaw, has been excellent and helped us to overcome any challenges throughout the process – helping to deliver a high performance heating system that will perform for many years to come."

“ When combined with the other energy efficiency initiatives in place, Hep₂O PB-1 UFH systems have helped to achieve the performance required and ensure a very low energy requirement of just 13-15 kWh for heating. ”

Geoff Mountain - Developer

Wavin is a member of the PBPSA.

Polybutene-1 (also known as PB-1) is the internationally approved name for the product. The product is also commonly referred to as Polybutylene in the UK and Commonwealth countries.

December 2014

Before using a product made from Polybutene-1 users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally. Polybutene-1 may not be used in the manufacture of any US FDA Class III Medical Device or Health Canada Class IV Medical Device and may not be used in the manufacture of any US FDA Class II Medical Device or Health Canada Class II or Class III Medical Device without the prior written approval by Seller of each specific product or application. Polybutene-1 is not sold by PBPSA members for use in pipe applications intended for use in North America, and those parties require their customers or distributors not to sell products made from PB-1 into pipe applications for North America.