

AFBI Environment & Renewable Energy Centre



Uponor goes the extra mile at Agri-Food & Biosciences Institute

Uponor is well known for going that extra mile but the Agri-Food and Biosciences Institute (AFBI) project in Hillsborough meant the company had to, quite literally, go the distance. By supplying over 2.7km of its Pre-Insulated plastic piping system for an innovative district heating system the installation is the second largest project the plumbing and underfloor heating expert has ever done in the UK.

AFBI carries out research into crop and animal production and, as part of one current study, the organisation is looking into the feasibility of renewables for the agricultural sector. As part of the work by AFBI's Environment and Renewable Energy Centre, AFBI installed a district heating system at the organisation's sizeable location covering the dairy offices, milking parlour, main pig unit, conference hall and a range of other facilities across over 200ha of land! So after assessing the demands of the project, M&E Contractor, Harvey Group, opted to utilise the expertise of Uponor, as Robert Hall, Project Manager, explained.

"The sheer size of the site at AFBI provided a wide range of challenges, not least getting the piping system over such a substantial area while maintaining temperature levels," he said. "After a lot of research we opted for Uponor's Pre-Insulated pipe as it provided a range of installation advantages as well as ensuring a high level of performance."

It is clear that the wide-ranging benefits of Uponor's plastic plumbing systems, when compared to 'traditional' methods, is the main reason why the likes of the Pre-Insulated range is now the product of choice.

Conservative estimates are that by utilising the easy-to-install Pre-Insulated system at AFBI saved three months on labour as opposed

Project Information

Address

Environment &
Renewable Energy
Centre, Hillsborough

Website

afbini.gov.uk

Completion

2009

Project Type

New Build

Building Type

Industrial

Applications

Ecoflex Pipe System

to other methods, such as black iron or fusion welding techniques. That is before you take into consideration the overall material cost savings and the high level of insulative performance! Robert added. "The fact that the product is already pre-insulated saves a substantial amount of time, as it avoids having to put in concrete ducts, while the simplicity of the mechanical wipex couplings also cuts back on our on-site time, as no specialist tooling was required.

"Despite the vast distances the pipe had to travel, which included over farmland and even under a road, there are very few joints and that simply means there is less that can go wrong.

"All these little extras add up to huge advantages on a project of this size and when that is backed-up by the service and support offered by the local Uponor team then you can't fail to be impressed."

But while the installation process ran smoothly, the real test was always how well the system would run – and the results speak for themselves.



Detailed monitoring by AFBI shows an estimated 67% reduction in heating oil with the water temperature difference through the Pre-Insulated Pipe across the 2.7km only 3- 5°C, highlighting the product's market-leading Lambda insulation properties.

Greg Forbes, Researcher at AFBI, said he is delighted at how well the system operates. "The idea was that, in addition to being able to research various renewable fuel types, we would be able to investigate the potential savings of installing a district heating system," he said. "We have substantially reduced heating oil costs and the Uponor system installed by Harvey Group is working extremely well. As well as fuel savings we have now cut back substantially on maintenance, having moved from a system using 12 to 14 boilers across the site to one back-up oil boiler."

For Warren Smyth, Uponor Business Development Manager (Ireland), the AFBI project perfectly highlights the advantages of the company's product range.

"In terms of the amount of Pre-Insulated Pipe that was needed, we haven't tackled a project of this size before in Ireland, but I think it proves how well the system works," he said. "The final install was pressure tested to 18bar and no leaks were evident over the 2.7km of pipework, which is testament to the integrity of the Pre-Insulation piping system."

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Involved companies

Client

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M&E Contractor

Harvey Group

Link to product page

[Solutions/Pre-insulated pipe](#)

