

## CASE STUDY

Kooltherm™ FM Pipe Insulation

### Airedale Goes Home with the help of Quick Construction

After suffering devastating damage from a fire in 2013, Airedale International Air Conditioning's Headquarters needed to be rebuilt on a tight schedule. Kingspan Kooltherm™ FM Pipe Insulation was installed on the successful rebuild in Rawdon, Leeds, due to its wide operating temperature envelope which suited the capabilities of their R&D centre. It was also selected for its exceptional fire performance.



The air conditioning company's offices, production area, and research & development area are located on one level in the new factory, accompanied by an under-croft car park. To ensure employees could move from their temporary premises, the programme needed to be completed quickly. BAM Construction used BIM at the design stage along with making the decision to have the industrial development as a turnkey project to help save time and resources. Kingspan Kooltherm™ FM Pipe Insulation was specified and is available as a BIM object from the BIMStore and from [www.kingspanindustrialinsulation.com](http://www.kingspanindustrialinsulation.com).

All pipe insulation used on the project was required to have FM Approval. Kingspan Kooltherm™ FM Pipe Insulation is FM Approved per Approval Standard Class 4924. FM Approvals LLC state the benefit of FM Approved pipe insulation as "Pipe and duct insulated with FM Approved insulation do not require supplemental sprinklers, sprinkler inspections, and sprinkler maintenance, thereby reducing long-term operating costs." Kooltherm™ FM Pipe Insulation also offers a European Reaction to Fire classification of B<sub>L</sub>s1,d0, the best available for phenolic insulation, and was installed on the pipework by thermal insulation contractors, Western Thermal Limited. This third-party certification demonstrates that the product conforms to the highest standards for safety and performance. In addition, the product has been developed to provide optimum performance with regards to insulation efficiency and can operate within a wide temperature range.

**Tony Cole, Managing Director from Airedale International, commented:**

"Due to the function of the building, it was imperative that the pipe insulation used supports extreme temperature ranges. The R&D test chamber temperatures can vary between -20 to +50 Degree Celsius and there is over 2 km of pipework within the rebuild."

Kingspan Kooltherm™ FM Pipe Insulation is CFC/HCFC-free, thermally efficient and has thermal conductivities as low as 0.025 W/m·K (at 10°C mean declared in accordance with BS EN 14314).



**Nick Howdle, project manager from BAM Construction, added:**

"Using BIM has been an invaluable resource for ensuring that we could accurately estimate the costings and timings, including effectively overlapping M&E installations without incident. We would have struggled to achieve the programme without offsite methods. BIM helped with clash detection, and we had zero snags with the pipework. On a £1.3 million package that is highly unusual, if not unheard of."

**Kingspan Kooltherm™ FM Pipe Insulation achieves Eurofins Indoor Air Comfort Gold certification and a BRE Green Guide A+ rating, as well as being manufactured under a BS EN ISO 14001: 2004 scheme. Furthermore, Kingspan Industrial Insulation has a free Pipeline Technical Advisory Service which can be contacted on 0808 168 7363. They also have Premier and Premier Plus Services which support purchases of Kingspan Kooltherm™ FM Pipe Insulation and the Kooltherm™ FM Complete Pipe Insulation System (incorporating insulated pipe support inserts and fire sleeves) respectively, delivering clear advice and guidance at every stage in a project, from the initial specification, to site visits and certification.**



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