

CASE STUDY

Kooltherm™ FM Complete Pipe Insulation System & Kingspan Kooltherm™ FM Duct Insulation

Kingspan Insulates Services on Visionary Science Building

The Kingspan Kooltherm™ FM Complete Pipe Insulation System and Kingspan Kooltherm™ FM Duct Insulation have been installed as part of Coventry University's flagship scientific teaching and research building, contributing towards the building's BREEM 'Excellent' rating and delivering a high level of fire resistance performance through the use of intumescent lined Kingspan Kooltherm™ FireSleeves.



The £59 million Science and Health Building has been constructed by BAM. The multi-disciplinary complex consolidates existing research facilities within new 'super-labs' and provides state-of-the-art healthcare simulation space. Broadway Malyan's design is comprised of flexible spaces which can be easily adapted over time to meet the University's changing requirements.

M&E consultants, Buro Happold, collaborated with NG Bailey M&E and Thermal Clad to ensure that the building services achieved outstanding energy performance. Their specification included 14,000 lm of Kingspan Kooltherm™ FM Pipe Insulation (as part of the Kingspan Kooltherm™ FM Complete Pipe Insulation System) and 5000 m² of circular and rectangular Kingspan Kooltherm™ FM Duct Insulation. The products feature premium performance insulation cores with thermal conductivities as low as 0.025 W/m·K and 0.022 W/m·K respectively.

Kingspan Kooltherm™ FM Pipe and Duct Insulation also offer excellent reaction to fire performance and are FM Approved to Class 4924 when installed in accordance with the conditions defined by the approval. As part of the Kingspan Kooltherm™ FM Complete Pipe Insulation System, Kingspan Kooltherm™ FireSleeves were installed around the pipework at penetrations. When exposed to high levels of heat, the intumescent material within these products swells and forms a hard char. This closes any gaps between the pipework and the penetration edge, maintaining proper compartmentation. They can act as a 2-hour fire stop to BS EN 1366 Part 3 on both steel and copper pipe service penetrations through rigid wall applications.

As a key element within the Kingspan Kooltherm™ FM Complete Pipe Insulation System, Kingspan Kooltherm™ Insulated Pipe Support Inserts were also installed. Thermal analysis has shown that these inserts can limit heat loss through pipe supports by as much as a factor of five when compared with metal pipe clips, further reducing energy demand from the building services. Slotted Kingspan Kooltherm™ FM Pipe Insulation was also installed at the University to insulate large diameter pipework.



Kingspan Kooltherm™ FM Pipe and Duct Insulation have been assigned a highest possible 2008 Green Guide Summary Rating of A+ by the BRE. Kingspan Kooltherm™ FM Pipe Insulation has also and has been awarded a best-in-class Eurofins Indoor Air Comfort Gold certificate, recognising it as outstanding material according to the VOC Indoor Air Quality emissions standards. Kingspan Kooltherm™ FM Pipe Insulation is the first pipe insulation product to attain BDA Agreement® certification under the scheme.

In addition to its free Pipeline Technical Advisory Service which can be contacted on 0808 168 7363, Kingspan Industrial Insulation has now also launched Premier and Premier Plus Services. These services support purchases of Kooltherm™ FM Pipe Insulation and the Kooltherm™ FM Complete Pipe Insulation System (incorporating insulated pipe support inserts and Kooltherm™ FireSleeves) 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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