



CASE STUDY

Kooltherm™ FM Pipe Insulation & Kooltherm™ FM Duct Insulation

Kingspan Industrial Insulation enters the Space Age

In space, even the smallest amount of debris can be the difference between success and catastrophic failure. When it came to insulating building services at the cutting edge new Science & Technology Facilities Council RAL Space Development and Test facility (R100) in Didcot, it didn't take a rocket scientist to see that the fibre-free cores of Kingspan Kooltherm™ FM Duct Insulation and Kooltherm™ FM Pipe Insulation made them the outstanding choice.



The world-leading R&D facility is based at the Harwell Science Campus in Oxfordshire. The campus forms the central hub of the UK space programme and played a critical role in last year's Rosetta comet landing. Willmott Dixon worked on the high-spec design for the new centre which includes a total of 1,200 m² of clean rooms and test chambers.

To ensure services performed as expected over 10,000 m² of Kingspan Kooltherm™ FM Duct and Pipe Insulation were specified for the numerous runs of service pipe and ductwork. The products' fibre-free insulation cores allow them to deliver outstanding energy performance with thermal conductivities as low as 0.022 W/m·K and 0.025 W/m·K respectively.

Matthew Bashford, Operations Director at specialist installers, Industrial Insulation Ltd. explained:

"The nature of the building's use meant no fibrous materials could be included within the specification. The fibre-free phenolic insulation cores of Kooltherm™ FM Pipe Insulation and Kooltherm™ FM Duct Insulation made them perfect for the job. In addition, the superior thermal conductivity of these products proved beneficial when insulating services with little clearance."

Specialist designers and installers, Clean Room Construction, oversaw work on the clean rooms while building services company Briggs & Forrester carried out the connections. To ensure clear communication the numerous service runs were designed with BIM Level 2 on the Revit platform, allowing clash detection exercises to be run in advanced, saving time and cost during the build. Kooltherm™ FM Pipe Insulation is available as a freely downloadable BIM object from either www.kingspanindustrialinsulation.com or the BIMStore website.

Kingspan Kooltherm™ FM Duct and Pipe Insulation have been assigned best-in-class Green Guide Summary ratings of A+ by the BRE and their insulation cores are manufactured with a blowing agent that has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP).



The products also deliver outstanding fire performance. Kooltherm™ FM Pipe Insulation holds a Euroclass reaction to fire rating of B_L,s1,d0 and both products are FM Approved to Class 4924 when installed in accordance with the conditions defined by the approval. The Kooltherm™ FM Pipe Insulation System is the first pipe insulation product to attain BDA Agreement® certification under the scheme 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 regulations.

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 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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