

CASE STUDY AUG04

KINGSPAN SPELLS OUT THE PLAIN FACTS ABOUT THE NEED TO INSULATE PLASTIC PIPES

Market leader Kingspan Insulation has published an informative brochure to address uncertainty in the HVAC industry about the need to insulate plastic pipes.

Confusion has been caused by claims of some manufacturers that by using plastic pipes either the thickness of insulation can be reduced or no insulation is necessary at all.



Now the facts have been spelled out in a concise, easy-to-read yet informative four page Kingspan publication 'Insulation and Plastic Pipes'. **It concludes unequivocally that using reduced thickness insulation or even none at all is not an option if current Building Regulations and British Standards are to be met.**

The brochure uses data based on the performance of Kingspan **Kooltherm** zero ODP rigid phenolic insulation in order to demonstrate the environmental thickness of insulation required for non-domestic hot water (60 °C) to control heat loss and for chilled water supplies (0 °C) supplies to control heat again based on BS5422: 2001.

The graphs for both types of application show a negligible difference in the thickness of Kingspan **Kooltherm** zero ODP rigid phenolic pipe insulation required for steel and plastic pipes in order to meet the requirements of BS5422: 2001.

The report points out that because pipe insulation products are sold in thickness with 5 mm increments, there is no

practical difference between the thickness of insulation required for plastic pipes in the overwhelming majority of cases.

It concludes: "Claims that plastic pipes need not be insulated or that they require less insulation should be treated with caution. By overlooking the fact that plastic pipes have minimal insulating properties, you may not be meeting the requirements of major national specifications including BS5422:2001 and NHS CO₂."

BS5422: 2001 has been written into Approval Documents L1 and L2 of the Building Regulations in order to ensure that the level of insulation on Building Services is in the line with the Government's commitment to reduce CO₂ emissions.

Geoff Wright, Technical Services Manager for Kingspan Insulation, Building Services and Industrial Insulation Products, said: "The *Insulation and Plastic Pipes* brochure has been produced by Kingspan Insulation in response to claims that plastic pipes require insulation of much reduced thickness or even no insulation at all.

"These claims have caused a considerable amount of confusion in the HVAC industry. Kingspan Insulation therefore decided to publish the facts about plastic pipes and insulation to enable customers to make more informed decisions."

Geoff added: "Data used in the publication clearly shows that the insulating properties of plastic pipes are so significant that they have a minimal effect on the thickness of insulation required to meet the BS5422: 2001 requirements."

The CFC/HCFC-free formulation of Kingspan **Kooltherm** zero ODP rigid phenolic insulation achieves a thermal conductivity as low as 0.021 W/m.K, a Class O / low risk fire rating to the Building Regulations/Standards, gives excellent resistance to fire, and also exhibits extremely low smoke emission.

Kooltherm zero ODP rigid phenolic insulation is the most thermally efficient product commonly available, providing an energy saving benefit and lower long term running costs, together with a closed cell structure which makes the product highly resistant to moisture penetration.

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