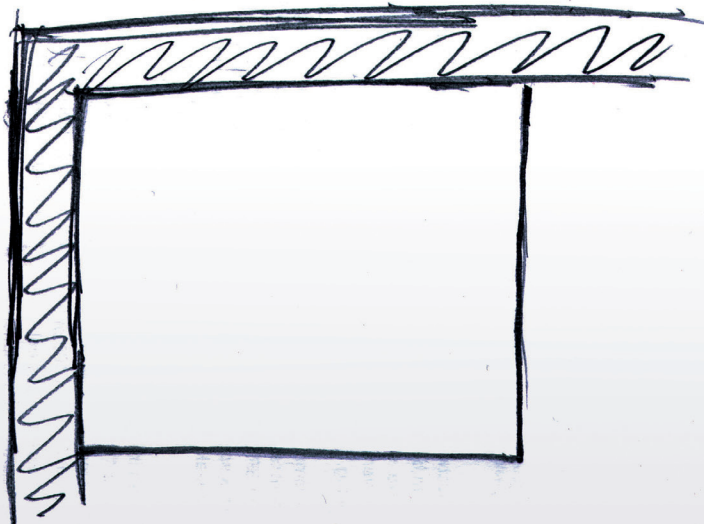


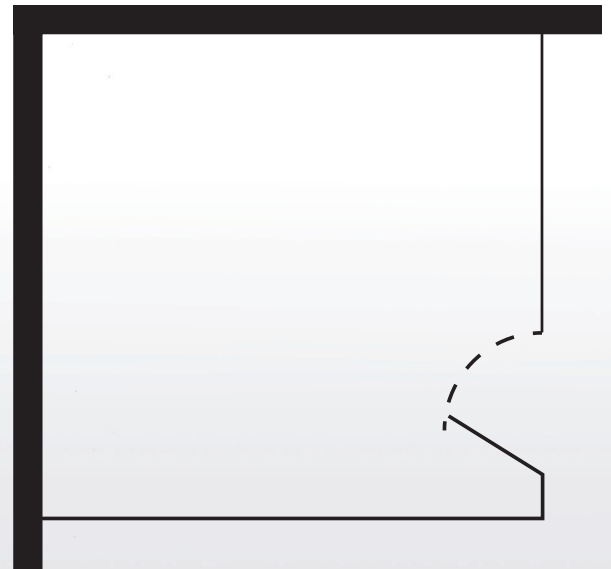


The Real Value of Space - A Summary

IN COMMERCIAL REAL ESTATE - THE IMPACT OF DIFFERING INSULATION SPECIFICATIONS ON THE ROI ASSOCIATED WITH INTERNAL FLOOR AREA



Traditional Material
Wall thickness = **528 mm**



Kingspan TEK[®] Cladding Panel
Wall thickness = **273 mm**

Introduction

The usable space within a building is a fundamental metric in understanding the valuation, thus the investment potential, of real estate. Property with greater internal floor area commands a higher rental return in addition to a higher overall financial value and could, therefore, give rise to a greater Return on Investment (ROI).

The width of external walls incorporating the *Kingspan TEK® Cladding Panel* is thinner than that incorporating comparative solutions – facilitating internal space gains without having to increase the overall designed footprint of a building.

With the aim of quantifying the financial benefits that result from insulating the external walls of new non-domestic buildings using the *Kingspan TEK® Cladding Panel*, Kingspan Insulation commissioned Sweett Group to investigate the 'Real Value of Space in Commercial Real Estate'.

This summary looks at the financial value of the additional floor area gained through the use of the *Kingspan TEK® Cladding Panel* solution in new non-domestic buildings.

Analysis

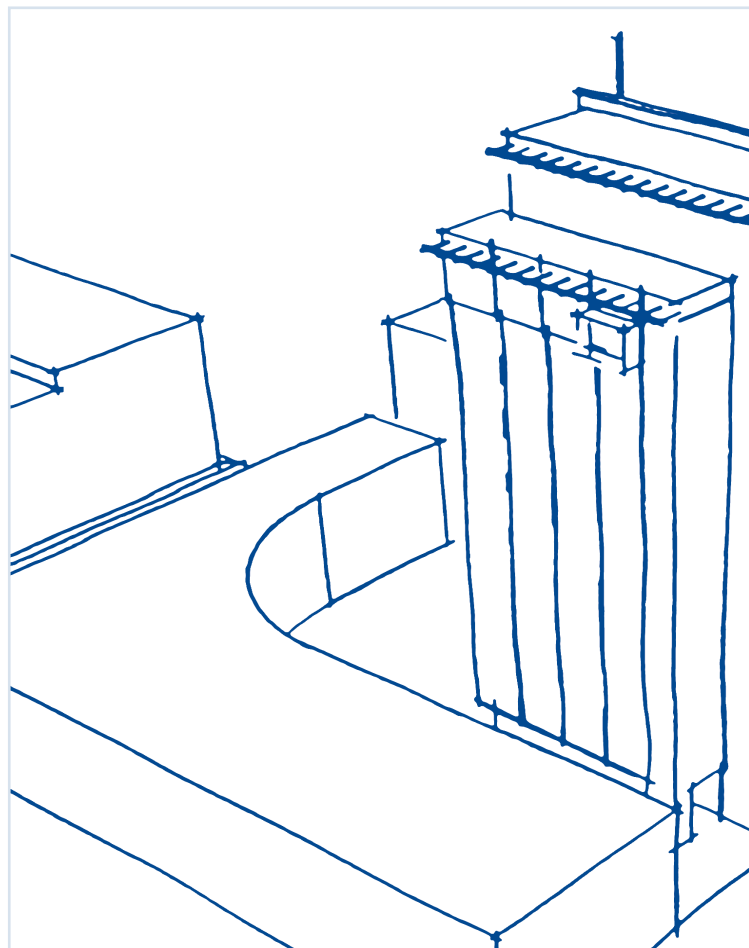
Sweett Group developed a research program to, firstly, analyse a database of 4,860 buildings generated from a model and, secondly, analyse nine real case study buildings.

The analysis considers both a range of building characteristics (e.g. size and shape) and a range of commercial variables (e.g. geographical location, rental value and material costs), that are representative of modern day commercial building stock across Great Britain. These factors were used to create a model from which a database of 4,860 building instances was generated. The database buildings were subsequently analysed to identify the financial benefit (ROI) of the internal space gains obtained via the use of the *Kingspan TEK® Cladding Panel*.

To establish the extent of this financial benefit on a given building, two external wall scenarios were examined. For each scenario, a comparison was made between three build-ups that differed by insulation specification. The construction width and cost for each build-up were used as direct inputs into the model. The subsequent outputs from the model were evaluated to determine the CapEx investment 'cost' of the additional space and, in terms of rental income and yield, the capitalised market 'value' of the additional space. The ROI was calculated by dividing the former by the latter.

To correlate the database findings with real buildings and real cost information, the same method of calculation as that used in the analysis of the database buildings was later applied to nine real case study buildings from Southampton to Glasgow.

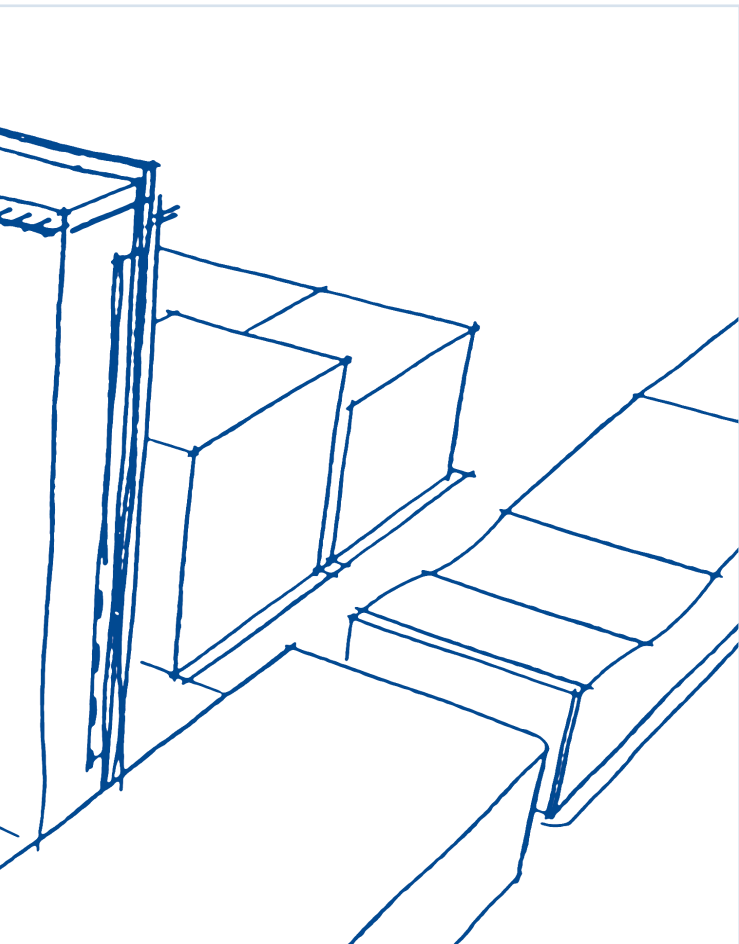
“A lower thermal conductivity can result in a thinner insulation. A thinner insulation can result in a thinner external wall construction. A thinner external wall construction can result in greater internal floor area. A greater internal floor area can result in a greater Return on Investment (ROI)”.



Findings

The findings show that, despite the requirement for a CapEx uplift ranging from £53.00 to £56.00 per square metre for the wall construction and 0.75% to 10.88% for the overall project development, the additional cost of specifying the *Kingspan TEK® Cladding Panel*, in lieu of the comparative solutions, can provide an overwhelming ROI*:

- 88% of the 4,860 database buildings analysed for each wall construction type showed a positive ROI;
- 31% of the database buildings showed an ROI between 300% and 1,000%, whilst 9% showed an ROI greater than 1,000%;
- The ROI for the database buildings in locations with non-domestic yields of 5% and lower can exceed 2,000%; and
- Eight out of nine real case study buildings showed a positive ROI – up to 720%.



Conclusion

It is clear from Sweett Group's findings that *Kingspan TEK® Cladding Panel* wall insulation solutions should be considered the insulation of choice, for new non-domestic buildings, where ROI is a consideration for property developers, owners and investors.

On the whole, the capitalised market 'value' of the additional space, resulting from the specification of *Kingspan TEK® Cladding Panel* wall insulation solutions, is far greater than the CapEx 'cost' of the additional space.

The rapid offsetting of the CapEx 'cost' of the additional space by the market 'value' of that additional space, is further underpinned by the findings for the real case study buildings.

As policy and legislation continue to target those activities that consume vast amounts of energy and contribute most to CO₂ emissions, buildings in particular are being subjected to increasingly stringent energy performance standards, which may include onerous requirements for the building envelope. This can lead to a subsequent increase in the wall insulation thickness required to achieve the specified thermal performance, and therefore a corresponding decrease in marketable internal floor area.

Poorer performing insulation materials (i.e. those with a higher thermal conductivity), can exacerbate the nuisance of ever-diminishing indoor space, particularly in buildings limited by a fixed footprint. Over time, this can erode the financial value, thus the investment potential, of a building.

High performing insulation materials (i.e. those with a lower thermal conductivity), on the other hand, can provide some relief, since a lower thermal conductivity can result in thinner insulation. A thinner insulation can result in a thinner external wall construction. A thinner external wall construction can result in greater internal floor area. A greater internal floor area can result in a greater ROI.

"Kingspan TEK Cladding Panel wall insulation solutions should be considered the insulation of choice, for new non-domestic buildings, where ROI is a consideration for property developers, owners and investors".

*The overall return on the additional CapEx investment required for the use of the *Kingspan TEK® Cladding Panel* versus comparative insulation solutions.

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Kingspan Insulation produces a comprehensive range of technical literature for specifiers, contractors, stockists and end users. The literature contains clear 'user friendly' advice on typical design; design considerations; thermal properties; sitework and product data.

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The Kingspan Insulation Technical Service Department can also give general application advice and advice on design detailing and fixing etc... Site surveys are also undertaken as appropriate.

The Kingspan Insulation British Technical Service Department operates under a management system certified to the BBA Scheme for Assessing the Competency of Persons to Undertake U-value and Condensation Risk Calculations.



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