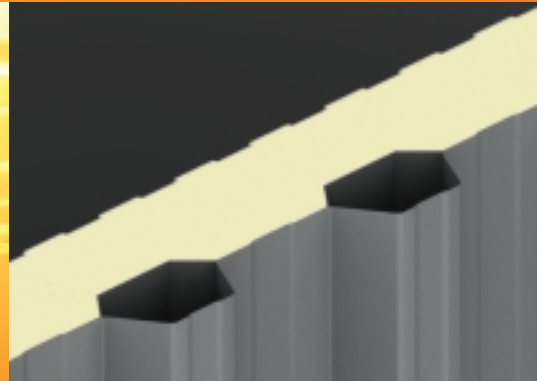


INSULATED ROOF & WALL SYSTEMS



Kingspan EnergiPanel

A simple, intelligent solar air heating system



Kingspan invest heavily in research and development and are constantly assessing market needs and designing solutions to meet customer requirements. Key areas of research have focused on sustainability, renewable energy resources, the reduction of running costs, and most importantly, lowering carbon emissions. As a result, a simple intelligent building system has been created.

At the forefront of innovation, Kingspan has created a revolutionary yet simple insulated panel system which not only provides the established high performance features of an insulated panel, but also generates renewable energy in the form of solar air heating.

Kingspan EnergiPanel is a new innovative insulated solar air heating system designed for roof and wall applications as a supplement to the main heating system.

Kingspan EnergiPanel is like no other insulated panel system. Solar energy is collected simply by using the outer steel skin as a solar energy absorber and incorporating profiled hollows beneath the crowns to facilitate air movement up through the panel. Kingspan's large scale test facilities have shown that heating cost can be reduced by up to 20%.*

Key Benefits

The Kingspan EnergiPanel solar air heating system:

- It is a low cost and reliable renewable energy source which provides rapid payback on investment – Kingspan's large scale test facilities have shown that heating cost can be reduced by up to 20%.*
- The buildings carbon emissions can be significantly reduced.*
- Increases chance of achieving planning permission – hundreds of local authorities are expected to follow Merton's lead by adopting pro-renewables planning policies.

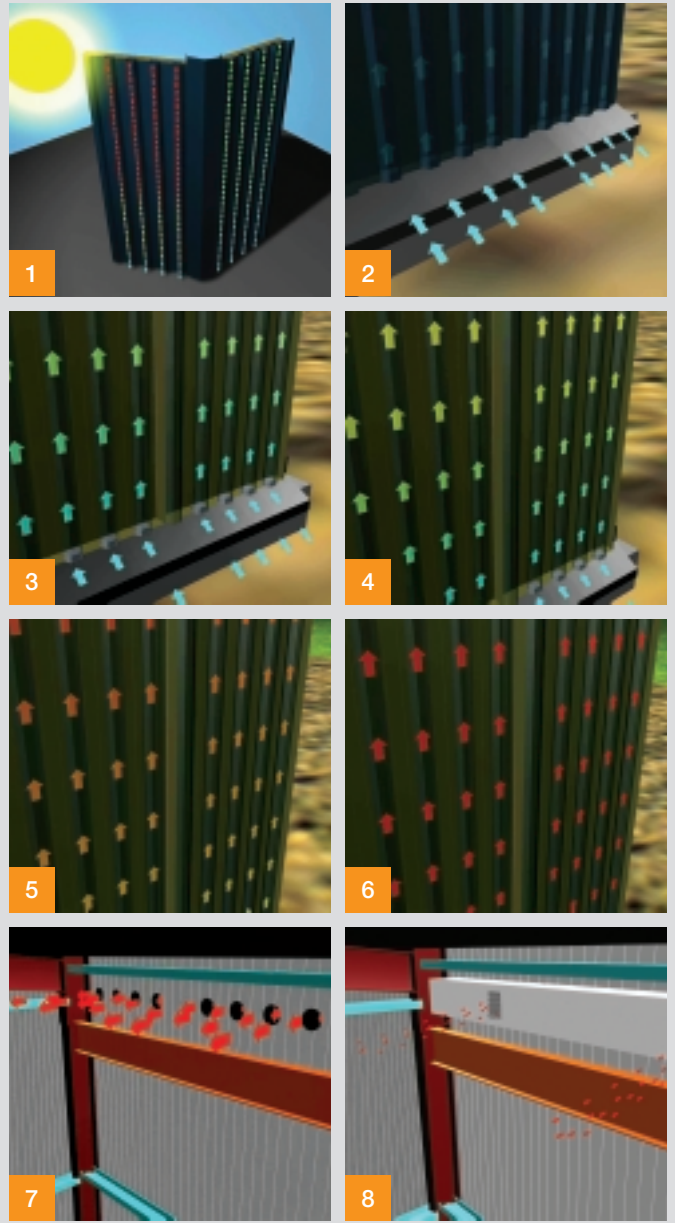
*To obtain computer modelled indicative data for your building, please contact Kingspan **envirocare** Technical Services on 0800 587 0090.

- Increases stability of assets value by achieving a better Energy Performance of Building Directive (EPBD) certificate rating.
- Is a simple **solar-ready** renewable insulated panel which is a fast track single component system. Kingspan EnergiPanel is a unique combination of structural based panel and the solar collecting facility in one composite panel.
- Uses tested and proven high quality insulated panel technology.



How does it work?

- Kingspan EnergiPanel is generally installed on the most southerly facing roof and/or wall elevations for optimum efficiency.
- The external profile of Kingspan EnergiPanel absorbs solar radiation and increases in temperature. The darker the external colour of the panel the greater the solar absorption.
- Low energy fans facilitate air flow up through hollow crowns and over the internal (collector) surface of the profile. As the air travels upwards through the voids it continues to absorb heat energy before exiting the collector at the top of the elevation.
- The rate of airflow up through the panel is determined by the temperature of incoming air. Temperature sensors constantly monitor the external air temperature and varies the fan speed to ensure the supply air temperature is above the required internal temperature of the building.



Other Benefits

- Compatible with HVAC systems.
- Is available with the Kingspan TOTAL Guarantee, offering 25 years thermal and structural performance guarantee.
- Uses low maintenance components.
- Kingspan *envirocare* Technical Services are available to design the most efficient building.
- Improves the overall quality of indoor air, by heating and transporting fresh air.
- Is available in a range of colours (the darker the external colour of the panel the greater the solar absorption).*

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Project: Plot 5020 Western Approach, Bristol



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