



VIPA International Case Study

British historical building preserves its beautiful exterior and its high-value internal space thanks to insulation with VIPs

The Problem

The team of architects from Studio Indigo who were planning to renovate their office space, a historical converted warehouse overlooking the Thames in Chelsea, knew that upgrading the property's thermal performance would be a challenge. They could not make any changes to the external façade of the building and losing too much on floor space would translate into a significant decrease of the property's value. After a careful analysis of the different insulation technologies available on the market, Studio Indigo opted for Vacuum Insulation Panels (VIPs).

The Solution

Thanks to their very slim design and high thermal performance, VIPs came as the best solution for this renovation project. With a thermal conductivity value of 0.0038W/mK (design value 0.007W/mK) VIPs offer high levels of insulation performance with a thickness of up to 5 times lower than that of traditional PUR insulations. Nevertheless, VIPs must be handled with care in order to ensure that no puncture damages their excellent performance. That is why the VIPs were supplied with a 10mm EPS backing pre-applied to both faces to protect them during the installation process when pressed against the uneven surface of the wall. Furthermore, Studio Indigo designed a system which created an 87mm clearance between the VIPs and the internal face of the renovated wall. This clearance would allow for internal fixings in the future without the fear of puncturing the panels.

The Result

The exact wall build-up was as follows - Existing wall / 15mm VIP with 10mm EPS backing to both sides / 60mm Gyproc stud / 12mm Plywood boarding / 12.5mm Plasterboard / 3mm skim coat. The analysis carried out by Studio Indigo revealed that the VIP system provided a saving of 45 mm compared with a PUR system with similar thermal performance. This resulted in a total gain of 4.2m² of high-value floor space.

Case study and images provided by Kevothermal

VACUUM INSULATION PANEL



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About VIPA International:

The Vacuum Insulation Panel Association is a global trade association representing the interests of manufacturers of vacuum insulation panels as well as supply chain. The mission of the association is to act as the global voice of the vacuum insulation panel industry, promote quality and raise awareness of the potential to save space and energy costs and to reduce carbon dioxide emissions in a wide range of applications and industries. VIPA International is a 501 (c) (6) not-for-profit organisation incorporated under the law of the State of Delaware in the United States of America.

The association was created in August 2014 by ten founding members.

For more information visit the website: www.vipa-international.org or contact the global office at vipa-international@kellencompany.com