



PROMAT ULTIMA® VIP

The preferred solution for the renovation of landmark housing complex in Geneva

Case study: Renovation project Le Lignon housing complex, Geneva Switzerland



Making Switzerland's post-war landmark future-proof

In 2010 the municipality of Geneva decided to embark on a full-scale renovation of Switzerland's most famous housing complex, Le Lignon, located in the suburb of Vernier. The Le Lignon housing complex was built between 1963 and 1971 and can accommodate up to 10,000 occupants. Famous for its exceptional length – stretching over 1km – and typical curtain-like façade, Le Lignon is considered a landmark of Switzerland's post-war architecture.

From an energy point of view, the building was outdated and needed a full-scale renovation of the building envelope. The goal was to make the housing complex future-proof and to reduce its overall energy index. The three main areas that would be tackled during the renovation were façades, terraces and covered pathways. After 7 years of planning, renovation works kicked off in 2017 and took 18 months to complete.

A challenging renovation

With Le Lignon being a classified building, the renovation project required careful consideration to answer all requirements in terms of energy efficiency, preservation of the building's heritage and value for money. To meet these requirements, Jaccaud + Associés from Geneva, the architects in charge of the renovation project, chose high-performance insulating materials.

Promat ULTIMA® VIP vacuum insulation panels were selected as the material of choice for terraces and covered pathways based on their exceptional insulation properties (λ -value of 4.2 mW/m.K), limited thickness and ease of installation.

For terraces Promat ULTIMA® VIP offers many benefits. The ultra-thin insulation layer of the vacuum insulated panel enables tenants to have the same structural design for the floor level of their indoor living space and their terrace, avoiding a step-up or blocking doors.

The simplicity in design, easy installation and highest thermal effectiveness of Promat ULTIMA® VIP panels also offer some great advantages for the covered pathways. Installers were able to perfectly insulate the entire roof space without the need to redo of build up the parapet wall.















The outcome: an energy efficient monument for generations to come

By insulating the building structure with high performance materials, such as Promat ULTIMA® VIP vacuum insulation panels, the energy required for heating and hot water has reduced by 30%. In concert with other renovation initiatives the energy index of the building is now 73 kWh/m², compared to 162 kWh/m² before renovation.

Summary

- → Location: Vernier (Geneva), Switzerland
- → Project: Housing complex of Le Lignon, renovation of apartment buildings from the 1960s
- Application: Terraces and covered passageways
- → Architect: Jaccaud + Associés, Geneva
- → Date: 2018
- → Challenges:

Landmark building, preservation of building's heritage Optimise the building's energy efficiency Cost-effective solution for apartment owners



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