

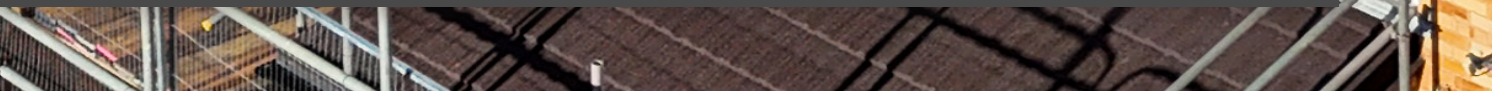


CASE STUDY

Profile 49

Southall Residential

The project refurbished a 340 sqm roof to improve energy efficiency and support a wider programme to increase the building's EPC rating. The existing roof had deteriorated over time, causing heat loss and poor thermal performance.



Product Used:

Profile 49

Project Size:

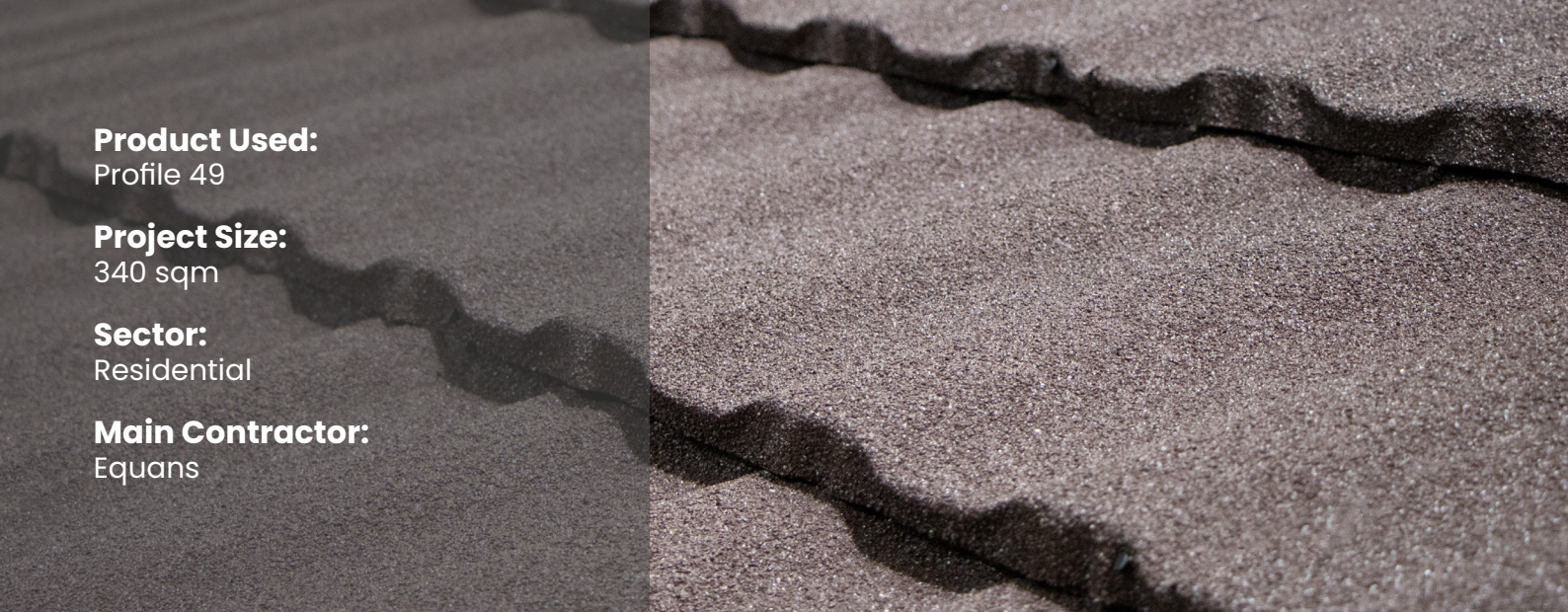
340 sqm

Sector:

Residential

Main Contractor:

Equans



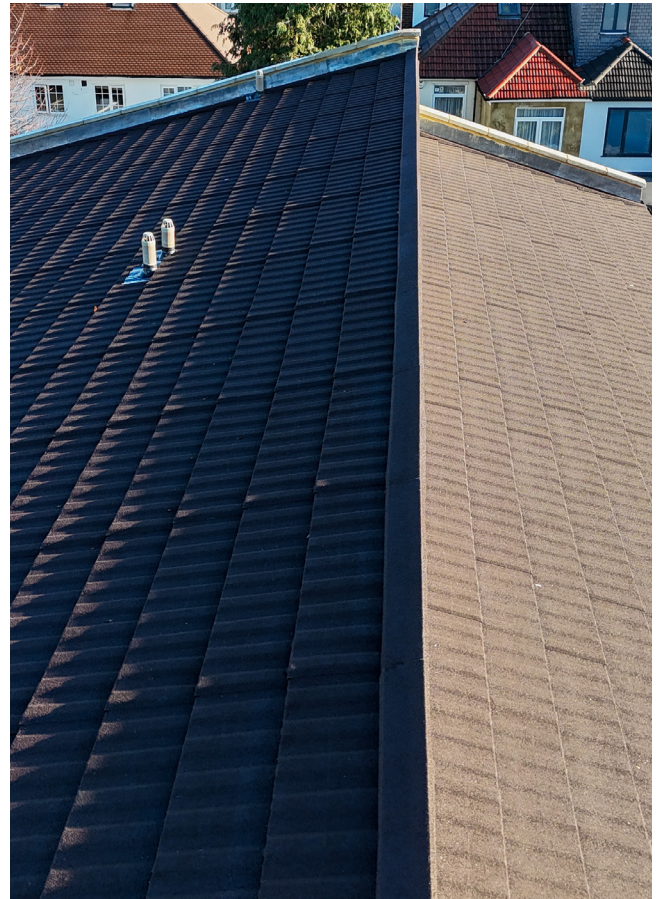
Project Details

The roof was upgraded to improve energy efficiency. A new insulated and retiled solution was required to address a low EPC rating and achieve a U-value of $0.3\text{W}/\text{m}^2\text{K}$, alongside wider upgrades including wall insulation, new windows and ventilation.

To meet performance targets, Flexi Rockwool insulation was installed between the rafters with 85mm Hardrock Multirock above. As this increased roof weight and height, Britmet Profile 49 was chosen as a lightweight solution to minimise structural impact, achieving the required performance without overloading the existing rafters.

Proposed Solution

- Designing the roof to achieve a U-value of $0.3\text{W}/\text{m}^2\text{K}$, ensuring compliance with thermal performance targets.
- Replacing traditional clay tiles with Profile 49 to prevent overloading the roof structure due to the added insulation weight.
- Use of Flexi Rockwool insulation between the rafters to enhance thermal performance within the roof structure.





Benefits and Challenges

A key challenge was managing the added weight and increased roof height caused by the high-density Hardrock insulation, which the existing rafters could not support alongside clay tiles. This was overcome by using Britmet Profile 49, reducing structural load and avoiding an additional 20mm increase in roof height.

The solution achieved a U-value of $0.3W/m^2K$, improved the building's EPC rating and delivered a lightweight, durable roof with long-term weather resistance.



Project Outcomes

The completed project delivered a compliant, energy-efficient roofing solution that met both thermal and structural requirements. The upgraded roof contributed significantly to improved building performance and energy efficiency. Having previously worked with Britmet on the Lambeth project with Equans, the project team was confident in the choice of Profile 49 and was satisfied with the high level of service and responsiveness provided by Britmet throughout the project, supporting a smooth and successful delivery.

