

## Case Study 2. Binary House



### Background:

The Client gave his architect the task of transforming an existing stepped terrace house of very basic character and located in a dull context of no significant architectural value.

They wanted to turn it into a completely revitalised property with a modernistic aesthetic and technological feel.

### The problem:

Along with the aesthetic and technological feel that the home-owner needed, the client also specified that the solution must also allow for natural daylight and views out to be maintained.

Furthermore, the uncontrollable heat gain was causing crucial issues and nuisance inside the residence.

### Results:

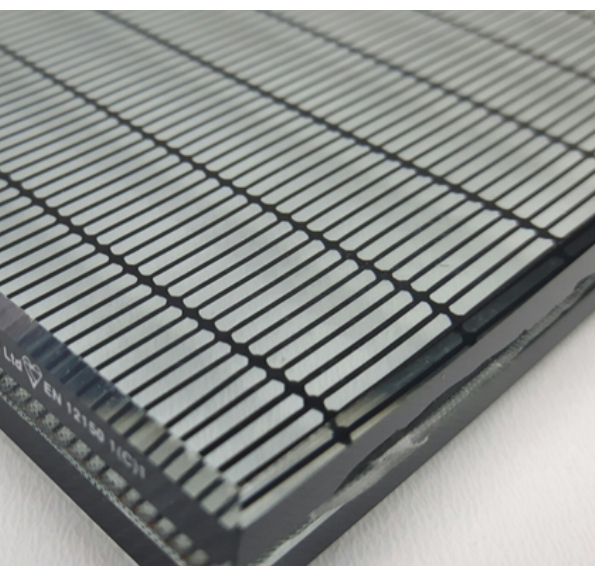
- Significant reduction in internal temperatures
- Balanced daylighting and full CRI
- Maintained unrivaled views out
- Compliant with all standards and regulations
- Easy to clean and durable





This new rear elevation deployed bronze Microlouvre Koolshade® laminated within the wrap-around glass panels across the roof and rear glazing.

Microlouvre Koolshade® was chosen because, as with any highly glazed structure, glass alone cannot effectively control solar heat gain, whilst simultaneously maintaining unobstructed views out and pure, natural daylighting.



## THE SOLUTION



The new rear elevation contains a central fixed glazed panel that is seemingly wrapping up and over to become a skylight. The architect used uncoated brass Microlouvre Koolshade® fabric laminated into the glass as a means of solar gain control, enabling views whilst reflecting sunlight. The customer also specified that the solution must also allow for natural daylight and views out to be maintained.

The micro fine louvres laminated within the glass panels are now ensuring the majority of the sun's rays and the ensuing heat gain are blocked from radiating into the house.

Microlouvre Koolshade® has 17 paper thin miniature louvres only 1.25mm wide in every 25mm of the bronze fabric, adding a mere 1.55mm of thickness and only 1.1 kg per square metre weight, to the laminated glass. The Microlouvre Koolshade® interlayer was used in the traditional horizontal orientation in Binary House but can be positioned vertically or at any angle. Microlouvre Koolshade® can have a natural bronze patina or polyester powder coated any colour.

Microlouvre Koolshade® Lamination combines all of the advantages of the MicroLouvre® metal fabric into a comprehensive, high-performance glazing system with impressive aesthetic effects. Moreover, it is truly sustainable as Microlouvre Koolshade® metal fabric is woven from 90% recycled copper scrap, with a proven 60 year lifespan and is 100% recyclable.

The owner can now enjoy comfortable temperatures in their modern, new home, as well as the views out through MicroLouvre's 80% open area with full natural daylight continuing to flood in.



*"MicroLouvre is a really effective solar control product not only pleasing to the eye, but you can really feel the difference when standing behind and its cooling effects. The nature of this dense metal louvre fabric creates very interesting halo effects when hit by light giving it an animated and yet very technological feel."*

Martin Gruenanger,  
Space Group Architects