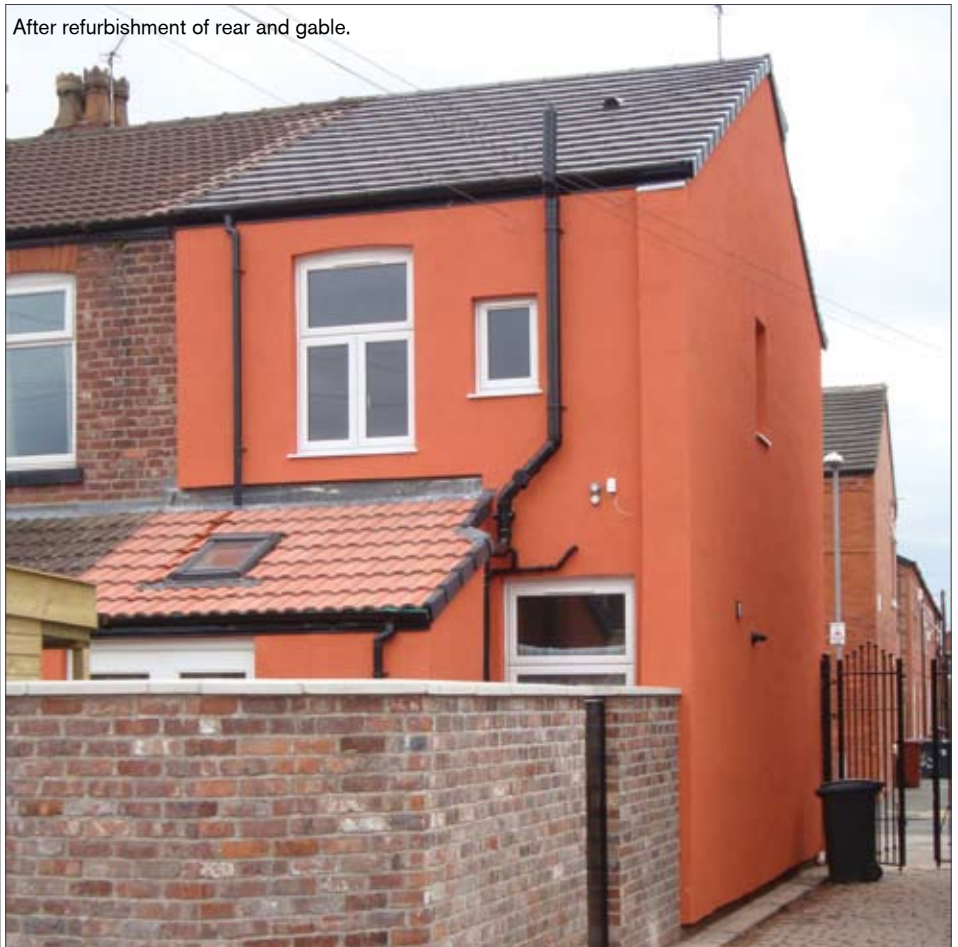


Structherm | Cladding
One Homes Project
Edith Avenue, Manchester

Sector: Social Housing
Low Rise
Refurbishment

After refurbishment of rear and gable.



Before refurbishment



During refurbishment



Specification

System: Structherm NSC2a

Insulation Type: Phenolic Foam

Insulation Thickness: 60mm

Render Build Up: 6mm Basecoat with
Embedded Glass Fibre Mesh

Decorative Finish: Acrylic Flesscoat
Cortina Normale TH

Colour: Terracotta

Client:

Manchester City Council /
Mosscares Homes

Consultant:

Bernard Taylor Partnership

Building Type:

Solid Brick Wall

Project Size:

'Super Home' Pilot Project
(Rear Elevation & Gable)

Product:

External Wall Insulation & Render Finish

Project Background:

Manchester City Council (MCC) is going through a programme of upgrading its stock of 'Hard-to-Treat' Solid Wall properties to bring them up to Decent Homes Standard. A typical two bedroom end terrace house was chosen to undergo a complete internal and external refurbishment and to become a live show house using all the latest Eco Friendly products such as solar panels.

Client Requirements:

As part of the external refurbishment MCC wanted a cost effective solution for externally refurbishing the rear and gable elevations of the property and one that would:

- Improve thermal performance and therefore cut fuel bills.
- Reduce CO₂ emissions.
- Improve the external appearance of the property.

The client wanted to retain the architectural brick façade to the front of the property therefore the brickwork was cleaned up and insulated internally.

Design Solution:

As the name suggests Solid Wall properties have no cavity,

Photograph of rear elevation before refurbishment shows the construction to be solid wall brickwork renowned for poor thermal performance due to lack of cavity.



Photograph of rear elevation and gable after refurbishment using Structerm External Wall Insulation and through coloured render.



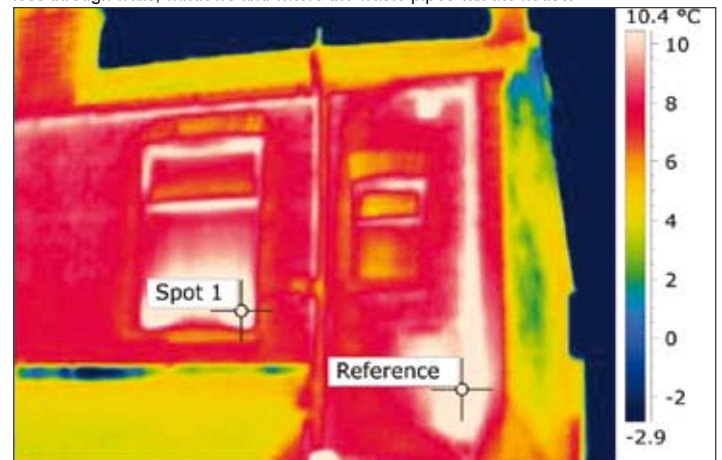
therefore cavity wall insulation was not an option for the client to improve thermal performance. Structerm's External Wall Insulation with high performance through coloured terracotta acrylic render finish was the chosen system as it was able to offer a solution to each of MCC's requirements.

Results:

- Thermal performance has improved greatly with the U value dropping from 1.79W/m²K to 0.28W/m²K. The thermal images below show the reduction of heat loss through the walls.
- The property now costs less to heat to a comfortable level and due to less heating being required the CO₂ emissions have also significantly reduced.
- The aesthetic appearance of the properties has greatly improved with the refurbishment programme also including new windows, roofs, soffits, fascias and downpipes as well as the overhaul of the façade.
- Air tightness tests showed a significant improvement from 14m³/m²/hr to 4.26m³/m²/hr

The property will be continually monitored over the next 12 months and assessed for its thermal, heating and air tightness performance.

Thermal image of rear elevation and gable before refurbishment shows excessive heat loss through walls, windows and where the waste pipes exit the house.



Thermal image of rear elevation and gable after refurbishment shows dramatic reduction of heat loss through walls of 5°C and windows of 7°C.

