

## External Wall Insulation Case Study

**Struchterm**  
Greener | Warmer | Stronger

### Kemball, Craunton & Cremer High Rise Blocks Eccles, Salford

**Sector:** Social Housing  
High Rise  
Refurbishment



After refurbishment



**Client:**  
City West Housing Trust

**Building Type:**  
Solid Brick High Rise Blocks

**Project Size:**  
3 Blocks 4,742m<sup>2</sup>

**Product:**

- External Wall Insulation
- Fastbrick - Real Brick Slip Cladding to Ground Floor

## Project Background:

City West Housing Trust (CWHT) was formed in 2008 to manage the social housing stock in Salford, Greater Manchester. The trust has a 5 year programme to upgrade over 300 non traditional properties comprising of various building types and 12 high rise blocks of flats.

Having completed various phases of low rise and high rise refurbishment works using Hanson Structherm external wall insulation (EWI) systems, CWHT decided to look at how three further high rise blocks in the Eccles area could be refurbished.

Kemball, Craunton and Cremer were in a bad state of repair. From the outside they looked dilapidated and had cracks and holes where water was ingressing, causing problems with damp and condensation. On the inside the kitchens and bathrooms were old and outdated and the flats were very poorly insulated making them hard to keep warm, meaning that most of the residents were in fuel poverty.

## Client Requirements:

CWHT wanted a solution to the problems associated with poor thermal performance and one that would:

- Improve thermal performance and therefore cut fuel bills.
- Reduce CO<sub>2</sub> emissions.
- Improve the external appearance of the block.

## Design Solution:

Structherm's "High Build" External Wall Insulation (EWI) and Fastbrick insulated real brick slip cladding systems were specified as they were able to offer solutions to each of CWHT's requirements.

The EWI consisted of a layer of high performance, 60mm thick, Phenolic insulation boards fixed directly back to the brick walls. The "High Build" render system was then applied, which was made up of two layers of 3mm basecoat render with polypropylene reinforcing mesh embedded.

To complete the system the client chose various colours of high performance Silicone render for the upper floors and on the ground floor the Fastbrick system was chosen because of its robustness and impact resistant properties. The system comprised of 25mm Phenolic insulation panels pre-bonded to a brickwork coordinating carrier sheet and an additional layer of 40mm thick Enhanced EPS insulation. Cradley Smooth Red brick slips were then fixed to the carrier sheet using a purpose made adhesive.

## Results:

- Thermal performance has improved greatly with the U value of the walls dropping from 1.15W/m<sup>2</sup>K to 0.27W/m<sup>2</sup>K
- The carbon footprint has reduced as it now requires less fuel to heat each home to a comfortable temperature.
- The aesthetic appearance of the flats has greatly improved as the refurbishment programme also included enclosure of the balconies to create conservatories, and the installation of new energy efficient windows.



Kemball, Craunton and Cremer high rise blocks after refurbishment.