

**Structherm | Cladding**  
**Lyndhurst Towers**

- Birmingham
- Standleys
  - Normanton
  - Fairbourne
  - Glendale
  - Kentmere

**Sector:** Social Housing  
High Rise  
Refurbishment



**Client:**  
Birmingham City Council

**Building Type:**  
No-Fines Concrete  
High Rise Blocks

**Project Size:**  
4 x 12 Storey 8400m<sup>2</sup>  
1 x 8 Storey 1200m<sup>2</sup>

**Product:**

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

## Project Background:

Structherm is working closely with Birmingham City Council (BCC) on its large scale, five year, housing refurbishment programme. The scheme involves around 68,000 properties of which 12,000 are of non-traditional construction encompassing over 40 different building types.

These five high rise blocks of flats on the Lyndhurst Estate were constructed using insitu concrete for the frame and a no-fines concrete infill which was then clad with brick. The flats were in a bad state of repair, looking dilapidated and urgently requiring external refurbishment due to problems with damp, condensation, water ingress and poor thermal performance.

## Client Requirements:

BCC wanted an external refurbishment 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 BCC's requirements.

The EWI system consisted of a layer of 90mm thick, high performance Mineral Fibre insulation boards. These were fixed to the concrete frame and infill panels using specially selected fixings. Two layers of 3mm basecoat render with glass fibre reinforcing mesh embedded were then applied.

Fairbourne Tower After Refurbishment



To complete the system the client chose a high performance through coloured Silicone render finish, to provide a modern and fresh look to the buildings.

On the ground floors, Fastbrick, an insulated real brick slip cladding system, was chosen because of its robustness and impact resistant properties. The system comprised of 50mm phenolic insulation panels pre-bonded to a brickwork coordinating carrier sheet. Striking blue, drag faced brick slips were then fixed to the carrier sheet using a purpose made adhesive and a black pointing mortar applied.

## Results:

- Thermal performance has greatly improved with the U value dropping from 1.18W/m<sup>2</sup>K to 0.33W/m<sup>2</sup>K resulting in each flat costing less to heat.
- Lower heating requirements has resulted in a significant reduction of CO<sub>2</sub> emissions.
- The fresh, contemporary design of the buildings along with new high performance windows and enclosed balconies has transformed the appearance of the blocks into modern and attractive buildings.

Normanton Tower After Refurbishment

