



CHIPPING NORTON



Client: Cottsway Housing Association Ltd
Building Type: Brick Cavity
Project Size: Phase 1, 4 x 3 Storey Blocks (1800m²)
System: Thin Coat NSC2d External Wall Insulation
Finish: Acrylic Brick Slips (ground floor)
VantagePro Silicone 1.5mm (upper floors)

Social Housing Refurbishment | Cornish Road, Chipping Norton

REFURBISHMENT OF SOCIAL HOUSING FLATS USING STRUCTHERMS THIN COAT EXTERNAL WALL INSULATION

Project Background:

Cottsway Housing Association was created in March 2001, after West Oxfordshire District Council tenants voted to transfer their homes from the council to the housing association.

Cottsway is now the largest housing association in West Oxfordshire. With offices in Witney, they manage more than 4,500 homes – including houses, flats and bungalows. They manage a regular programme of home improvements to their properties each year, to maintain the quality of tenants' homes. Through the use of stock condition surveys Cottsway identified a

large number of blocks of flats which were in need of external refurbishment and required additional insulation to make the flats warmer for residents and reduce their fuel bills.

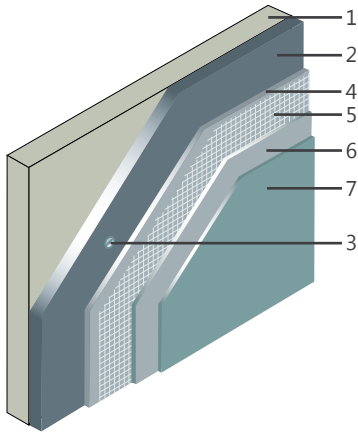
Client Requirements:

Cottsway wanted a cost effective solution for externally refurbishing the blocks of flats. They also wanted to retain a degree of traditional appearance, so they decided to specify a Structherm external wall insulation system.

The system would improve the appearance of the flats by combining a traditional looking acrylic brick slip finish with a contemporary silicone textured finish. Due to a layer of insulation it would also significantly improve the thermal performance of the flats and therefore help reduce residents fuel bills.

STRUCTHERM'S EXTERNAL WALL INSULATION SYSTEM PROVIDED THE PROTECTION, THERMAL AND AESTHETIC QUALITIES REQUIRED

Thin Coat System - NSC2



1. Substrate
2. 70mm Enhanced EPS insulation
3. Fixing
4. Basecoat render 3mm
5. Glass fibre reinforcing mesh
6. Basecoat render 3mm
7. VantagePro silicone 1.5mm top coat finish / Acrylic Brick Slips

Design Solution:

Structherm's Thin Coat NSC2 External Wall Insulation (EWI) was chosen as the preferred system. It consisted of a layer of high performance Enhanced EPS insulation boards 70mm thick designed to exceed the current Building Regulation requirements for thermal performance.

The insulation boards were fixed in to the existing brickwork using specially selected fixings to ensure there would be no failure of the system in years to come.

Basecoat render was then applied in two coats. The first layer of high polymer modified basecoat render incorporating lightweight aggregates and reinforcing polyester fibres was applied to a thickness of 3mm followed by glass fibre reinforcing mesh in roll form, embedded into first layer of basecoat render. The second 3mm layer of basecoat render was then applied over the mesh to give a final thickness of 6mm.

To complete the system two finishes were used, on the ground floor a lightweight, yet high quality acrylic brick slip finish in a traditional beige multi stock effect was applied with a light grey adhesive and mortar layer. For the upper floors Structherm VantagePro Primer was applied followed by a contemporary Silicone 1.5mm protective top coat in cream.

Results:

- The combination of traditional and contemporary finishes has greatly improved the appearance of the flats and has fully met the clients expectations.
- Thermal performance has improved greatly with the U value of the walls dropping from 1.54W/m²K to 0.25W/m²K.
- Each flat now requires less fuel to heat to a comfortable temperature, therefore helping to reduce residents fuel bills.

