

Insulated Render and Cladding for New Build & Remodelling

The faster, simpler approach to meeting Building Regulations and beyond

Insulated render and cladding is becoming one of the fastest growing systems for new build and re-modelling throughout Europe and North America with in excess of 100 million square metres currently being installed. In the UK the increasing shortage of skilled labour for conventional construction, and architectural design, is now directing the UK construction industry to follow this trend, which utilises approved specialist sub-contractors.



▲ Star City leisure complex, Birmingham



▲ University of East London

If you are designing a prestigious new residential, commercial or industrial development - or you simply need to build speedily and cost effectively - then insulated render and cladding systems are for you.

Insulated render and cladding is a simple process that is added to the external face of the concrete block or framed construction to form a weatherproof composite wall. It can go up faster than traditional building, yet still retain a traditional external appearance.

It provides the flexibility to turn an exciting design concept into trend-setting reality – or the ability to re-model an existing building for a practical new future.

External wall insulation has been applied successfully in the UK for 25 years and for over 40 years on the Continent, where solid wall is the predominant form of construction. It is also increasingly being applied to panel wall systems using steel and timber studs. Advanced render and cladding technology has taken well proven materials and systems into the 21st century, offering crisp clean aesthetics combined with optimum energy efficiency.



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MEETING BUILDING REGULATIONS

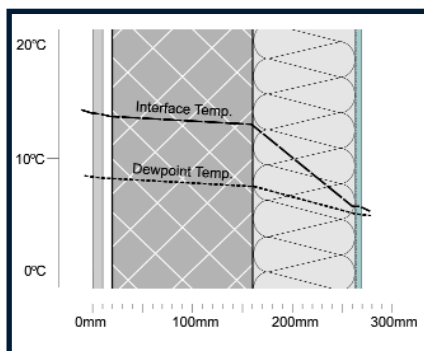
Maximum energy efficiency is achieved by placing the insulation outside the main building structure, so that the whole fabric becomes a heat store. Building Regulations require a U-value of 0.35 W/m²K (England), 0.3 W/m²K (Scotland) and 0.27 W/m²K (Republic of Ireland) – N Ireland domestic and commercial buildings remaining at 0.45 W/m²K – or better if design requires. An example of how these can be achieved is given below. Insulation thicknesses related to the U-values are indicative only and are based on an air-entraining insulant. Specific calculations should be obtained from system designers using verified insulation values.

Example (from inside):

- 10 mm plasterboard
- 140 mm blockwork
- 90 mm insulation (0.35 W/m²K)
- 105 mm insulation (0.3 W/m²K)
- 120 mm insulation (0.27 W/m²K)
- 65 mm insulation (0.45 W/m²K)
- render or cladding finish

NB: *The insulation, mechanically and/or adhesive fixed, coupled with the render or cladding, should be part of an INCA Registered system, which will be proven in UK humidity conditions.*

U-value & Condensation Risk Analysis



Typical construction showing U-value 0.35W/m²K or better

Photos:

- 1 Cremer Street, London E2 - apartments
- 2 Enfield Travel Inn
- 3 Willesden Lane, London - apartments
- 4 Morwell Street, London - remodelled office block
- 5 Century Court, Cheltenham - apartments

BENEFITS OF INSULATED RENDER & CLADDING FOR NEW BUILD

- Optimum energy efficiency
- Meets current and planned changes in Building Regulations for improved thermal performance
- Avoids problems with cavity construction, i.e. failing ties and dpc's
- Dispenses with need for skills in brick laying, and batt insulation
- Improves construction time cost effectively by removing the outer cladding element from the critical path
- Prevents condensation and cold bridging
- Maximises weather protection by using proven systems
- Provides flexibility for range of construction options and design concepts
- Offers superb aesthetic solutions, using design, colour and texture
- Often allows smaller capacity heating system to be installed
- Offers selling advantage to client
- Insurance backed guarantee offered through INCA, where INCA system and installer used (provided agreed prior to contract start)
- Thermal stabilisation and protection of the substrate

INSULATED RENDER & CLADDING ASSOCIATION

INCA, as the national trade association for this industry, offers:

- Register of Systems, proven in the UK – their components, properties and standards
- Register of Installers – their experience and qualifications
- Codes of Practice for product and application
- Industry insurance-backed guarantee scheme covering INCA BBA/Wimlas systems, installed by INCA contractors (provided agreed prior to contract start)

For further information see:

Specifiers' Briefing on system types, insulants and finishes – also refurbishment applications.

Insulated Render & Cladding Association Limited (Formerly the External Wall Insulation Association)

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