

# External wall insulation

Before your walls can be insulated, any problems with penetrating or rising damp must be resolved. Insulation should not be used to cover, hide or isolate damp as this could lead to serious problems in the future.

To insulate a solid wall from the outside, a layer of insulation material is fixed to the walls with mechanical fixings and adhesive, then covered with protective layers of render or cladding.

The finish can be smooth, textured or painted, tiled, panelled, pebble-dashed (for easy maintenance) or finished with brick slips to provide a real masonry brick finish.

To prevent condensation, recessed areas around windows must be insulated as well as the walls – with the depth of insulation depending on the width of the window frame.

All external pipework and other fittings will have to be removed and replaced, and it may be necessary to extend window sills and even the roof overhang to protrude beyond the new layer. It is often possible to fit additional sills to avoid replacing any of the original structure.

## Cladding or render?

Cladding comes in a variety of attractive colours and forms: timber panels or shingles, stone or clay tiles, aluminium panels or a brick finish.

Render can be either a thick sand and cement mix applied over a wire mesh or a thinner, lighter cement over a strong fibre mesh. It is generally less expensive than cladding.

## Finding an installer

External solid wall insulation should be fitted by a specialist installer trained by an approved system designer. Several insulation companies have developed complete external wall insulation systems that, if fitted properly by an approved installer, will achieve the required thermal performance, weather proofing and other requirements. You can find these system suppliers and their approved installers through one of the relevant trade associations:

- ✔ Insulated Render & Cladding Association (INCA).
- ✔ National Insulation Association (NIA).

To be eligible for any government financial support scheme such as Green Deal or ECO you must use a Green Deal certified installer. For a full list of Green Deal certified installers, visit the Green Deal orb website.

When choosing an installer, you might want to ask for:

- ✔ before and after photos of previous internal wall insulation work
- ✔ the rate at which heat will pass through the wall after the work is done, known as the U-value. This should normally be no more than 0.30 watts per square-metre kelvin - the lower the better.
- ✔ what consideration needs to be given, if anything, to avoid the build-up of moisture in your home.

## Regulations

Normally your installer will ensure that the insulation is up to standard and will arrange approval from the local Building Control Office for you. If they are not going to do this, you should contact Building Control at an early stage to make sure you comply.

A building warrant is likely to be required.

If the building has multiple owners – such as in a tenement block of flats - permission will need to be sought from all owners.

If you live in Conversation Area, or World Heritage Area there are likely to be restrictions on modifications to the external appearance of the property.

Contact your local authority planning department to check what permissions are required.

