External Wall insulation – Guidance note

Section 1- Introduction

Purpose of this document
This note provides guidance on the planning and building control requirements when adding external wall insulation to a property or renovating a solid wall. If you are planning to renovate more than half a wall by cladding or rendering the external surface or dry-lining the internal surface then you are required under the Building Regulations to add insulation to improve the thermal performance.

Since January 2013, external wall insulation on individual dwellings has been classed as an alteration for the purposes of “permitted development”, meaning planning permission may not be required. For blocks of flats and certain dwelling types, however, planning permission will be required. In all cases, the Council encourages householders to undertake works such that they maintain high quality residential streets and neighbourhoods.

What is external wall insulation?
Houses built before 1930 and some in later years, typically have solid masonry walls meaning that cavity wall insulation cannot be applied.

Solid wall insulation is generally a composite system made up of a layer of insulation fixed with either mechanical fixings or adhesive to the wall and covered with a protective decorative finish of render or cladding. The finish is often designed to be similar to the wall finish prior to the works e.g. paint, pebbledash or brick slips. For the installation to be a permitted development the materials used shall be of a similar appearance¹ to those used in the construction of the exterior of the existing house.

External wall insulation is usually used for solid masonry walls however it can also be used for other wall types e.g. hard to treat cavity walls.

Insulating external walls can:
- greatly reduce heat loss, saving up to 25% of fuel bills
- improve the weather proofing of the wall
- provide sound resistance
- increase the life of walls by protecting brickwork
- reduce condensation and damp on internal walls

¹ See section 3
Building Regulation Requirements

Building Regulations (Part L1B)\(^2\) sets energy efficiency requirements where more than 50% of a thermal element (see below) or more than 25% of the overall building envelope is being renovated. The following renovation works are subject to Building Regulations:

- applying a new layer (cladding or rendering the external surface or dry-lining the internal surface)
- replacing an existing layer (e.g. stripping the wall back to brick and rebuilding)

In the case of walls the thermal element refers to a wall which separates the heated part of the building from the external environment.

This means that all external wall insulation is therefore notifiable with Building Control. It also means that whatever renovation you are undertaking to your wall, if it affects more than half the wall (or more than a quarter of the overall building envelope) you will need to add insulation to improve the thermal performance of the whole of that individual thermal element.

The Building Regulations (Part L1B) requirement is to ensure walls have U-values of no more than 0.3 W/m\(^2\)K. (The U-value is a measure of the flow of heat through a thermal element. The lower the U-value the better an insulator it is.) Please refer to Section 3 for more details on what this requirement means in practice.

Building Control process

Full information on the Building Control process and the associated fees can be found on Havering Council’s website [www.havering.gov.uk](http://www.havering.gov.uk).

The Building Notice Form will need to be submitted prior to work commencing. You will need to describe the works to be undertaken, and should include the name and type of insulating material to be used, and state whether or not the insulating material is approved by the British Board of Agreement or conforms to a British Standard specification and whether the installer is approved under PAS 2030.

If you want to insulate a Party Wall (even if it is just the end of the party wall where it joins the front elevation) a Party Wall agreement will be required. A Party Wall Notice should therefore be sought at the same time as the Building Notice.

Multiple properties within the same street can apply under one Building Notice, but if more than one street is being insulated, a separate Building Notice will be needed for each street.

Section 3 - Planning

Permitted Development

Since January 2013, external solid wall insulation has been included under Class A Permitted Development for single houses (rights for the enlargement, improvement or other alteration of a house).\(^3\)

For the works to be Permitted Development the materials must be of a similar appearance to those used in the construction of the exterior of the existing house. The table below summarises guidance on what may or may not be judged as similar appearance. Please note this is for guidance purposes only and the ultimate decision rests with the planning department on a case by case basis.

<table>
<thead>
<tr>
<th>Existing house</th>
<th>Finishing material</th>
<th>Similar Appearance?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick</td>
<td>Brick slips</td>
<td>Yes (Certificate of Lawfulness advised)</td>
</tr>
<tr>
<td>Render</td>
<td>Same colour render</td>
<td>Yes (Certificate of Lawfulness advised)</td>
</tr>
<tr>
<td>Render</td>
<td>Different colour render</td>
<td>No (discuss with planning department)</td>
</tr>
<tr>
<td>Brick</td>
<td>Render</td>
<td>No (discuss with planning department)</td>
</tr>
</tbody>
</table>

If you are unsure whether the finishing surface of the insulation will be deemed to be of a similar appearance then a Certificate of Lawfulness should be sought. This will provide a formal confirmation that planning permission was not required. Many householders choose to apply for a Certificate of Lawfulness to gain certainty and for use as evidence when selling the property. If there is a change in appearance then full planning permission will be required.

Permitted development rights only extend to houses and full planning permission will be required for external solid wall insulation in the following cases:

- Blocks of flats (including houses converted into flats)
- Houses in Havering’s designated Conservation Areas (there are 11 designated areas, please refer to the Council’s website for the Heritage Supplementary Planning Document\(^4\))

Gaining Planning Permission

Havering Council has a positive approach to external wall insulation. For example insulation that improves the visual look of the property and is in keeping with the area is likely to be granted permission. Similarly, where insulation would change the appearance of a property, the appearance of neighbouring properties and other elements of the same property will be taken into account when making a judgement. It is therefore important to engage with the planning department early in your decision making process.

In conservation areas there are greater restrictions on planning permission as detailed in the section below.

---


\(^4\) Havering Council’s Heritage Supplementary Planning Document
Conservation Areas

In Conservation Areas external alterations can not take place without planning permission, since such alterations have the potential to erode the character and appearance of the area.\(^5\) In practice this means that external solid wall insulation will require planning permission and the Council will pay special attention to preserving or enhancing character and appearance.

For most properties within these areas it will not be permitted to externally insulate the front facade of the property. However depending on visibility and architectural features it may be acceptable to add external wall insulation to the side and/or rear elevations. Walls that cannot be insulated externally may be possible to insulate internally, ensuring that important external features are retained on a property.

The images below show a property which had internal insulation installed to the front of the property and 120mm of external insulation applied to the side and rear elevations. The insulation was brought flush with the front of the property and by retaining all the window features to the front of the property the appearance remains very similar to prior to works.

Pre – wall insulation

Post – wall insulation

Planning process

Further information on submitting a planning application or applying for a Certificate of Lawfulness and the associated fees can be found on Havering Council’s website [www.havering.gov.uk]\(^6\). The Council encourages applicants to submit applications online through the Planning Portal ([www.planningportal.gov.uk](http://www.planningportal.gov.uk)).

In all cases, whether or not planning permission is needed, the Council encourages householders to undertake works such that they maintain the high quality residential streets and neighbourhoods.

---

\(^5\) See the Havering website for further details.

\(^6\) Currently, planning guidance can be found at: [http://www.havering.gov.uk/Pages/Category/Planning.aspx](http://www.havering.gov.uk/Pages/Category/Planning.aspx) and application forms at: [http://www.planningportal.gov.uk/uploads/appPDF/5480Form004_england_en.pdf](http://www.planningportal.gov.uk/uploads/appPDF/5480Form004_england_en.pdf) but it is essential to check Havering’s website for any more up-to-date information prior to lodging an application.
Section 4 – Summary

The flow chart below summarises the building control and planning process regarding solid wall insulation works.

As guidance the table below gives a sample of property types and the likely requirement placed on them.

<table>
<thead>
<tr>
<th>Property</th>
<th>Finish</th>
<th>Requirement</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>In conservation area</td>
<td>All</td>
<td>Planning permission</td>
<td>Submit Planning Application Submit Building Notice Form Submit Party wall application (if applicable)</td>
</tr>
<tr>
<td>Flat</td>
<td>All</td>
<td>Planning permission</td>
<td>Submit Planning Application Submit Building Notice Form Submit Party wall application</td>
</tr>
<tr>
<td>House</td>
<td>Render on brick</td>
<td>Planning permission</td>
<td>Submit Planning Application Submit Building Notice Form Submit Party wall application</td>
</tr>
<tr>
<td>House</td>
<td>Render replacing render</td>
<td>Permitted development</td>
<td>Certificate of Lawfulness recommended Submit Building Notice Form Submit Party wall application (if applicable)</td>
</tr>
</tbody>
</table>
Section 5 – Undertaking the Works

Design implications
To achieve the necessary thermal performance levels insulation of a thickness of approximately 50mm to 150mm will be required. The resulting increase in wall thickness will have an impact on other elements of the property e.g. window sills, boiler flues, roof overhangs and external pipe work which may need extending or relocating.

To prevent cold surfaces and condensation, insulation must be extended into window and door recessed areas. This will slightly reduce window sizes and in some cases may impact window functionality. If windows are to be replaced at the same time they can be relocated to the outside edge of the existing wall so that the wall insulation will adjoin the window frame without having to be extended into the recess.

The installation process is weather-dependent and consideration should be made of timings. The installation will take approximately 7 days, during which external temperatures need to be between 5°C and 30°C, with low rain risk.

It is important that manufacturers details of materials and installation methods are adhered to in respect to leaving insulation panels unprotected to rain exposure. If confirmation cannot be provided by contractors Building Control Completion Certificates may be withheld and manufacturer's warranties placed in doubt. In addition consideration may be given to enforcement proceedings under Building Regulations.

Internal wall insulation
Where external wall insulation is not permitted, or where property owners wish to retain particular external design features internal wall insulation may be the most appropriate option.

Internal wall insulation involves applying a layer of insulation to the wall surface and a layer of plasterboard. There will be a slight loss of internal space and sockets, light switches, skirting boards etc will need to be removed and replaced. Again insulation must be returned into window and door recesses.

Workmanship
The addition of wall insulation should be undertaken by a qualified contractor. Building Control will ensure that the insulation is installed to the manufacturer's specifications. Householders should check that the insulation system they are using either has a British Board of Agreement (BBA) certification or European Technical Approval (ETA). If the work is to be conducted via Green Deal or the Energy Companies Obligation (ECO) then the installer will need to carry the Green Deal Mark (PAS 2030 certification) to demonstrate they comply with the Green Deal standards. To gain ECO funding the insulation will need to be accompanied by a SWIGA (Solid Wall Insulation Guarantee Agency) or equivalent guarantee, or if the property is more than four storeys high then Building control and clerk-of-works sign off will be needed.
Section 6 – Additional Information

Funding for External Wall Insulation

Green Deal
The Green Deal is a government initiative to help residents finance energy efficiency improvements of both domestic and commercial property throughout the UK. It is a fixed term finance agreement which remains with the property and is repaid via the electricity meter.

The value of the fixed term finance agreement and the payback period is calculated based on a principle called the ‘Golden Rule’. This requires that the predicted fuel bill savings from the energy efficiency measure installed must be able to cover the cost over the lifetime of the measure installed (in the case of solid wall insulation this is 25 years)

Energy Companies Obligation (ECO)
ECO is a grant provided by energy suppliers for:
• some measures that cannot be fully funded by Green Deal (e.g. solid wall insulation)
• insulation measures and district heating to areas of high deprivation
• measures which improve the ability of low income and vulnerable households to affordably heat their homes

Solid wall insulation will be able to gain ECO funding to fund a proportion of the works. In order to achieve funding 100% of a measure must be installed unless there is a ‘good reason’ why they cannot which must be verified by Ofgem.

External wall insulation can also in some cases be combined with other measures and gain funding towards both measures.

To find out more about the Green Deal and ECO, please see http://www.energysavingtrust.org.uk/

Other Energy Saving Measures
There may be cost and time savings by undertaking other energy saving measures and property improvements e.g. window replacement, at the same time as insulating your walls.

Combining lower cost measures e.g. boiler replacement and loft insulation with external wall insulation may enable a group of measures that meet the ‘Golden Rule’ to be achieved enabling Green Deal finance.

Energy saving measures that you may wish to consider alongside your external wall insulation include:

<table>
<thead>
<tr>
<th>Insulation</th>
<th>Heating</th>
<th>Hot water and electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loft insulation</td>
<td>Efficient boilers</td>
<td>Solar PV</td>
</tr>
<tr>
<td>Floor insulation</td>
<td>Heating controls</td>
<td>Solar thermal</td>
</tr>
<tr>
<td>Insulation to hot water systems</td>
<td>Heat recovery systems</td>
<td>Water efficient taps and showers</td>
</tr>
<tr>
<td>Flat roof insulation</td>
<td>Ground source heat pumps</td>
<td>Light fittings and controls</td>
</tr>
<tr>
<td>Draught proofing</td>
<td>Air source heat pumps</td>
<td></td>
</tr>
<tr>
<td>Efficient glazing and doors</td>
<td>Biomass boilers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Micro CHP</td>
<td></td>
</tr>
</tbody>
</table>