

Article for Homelife (February edition)

Insulate your home to save energy and money

Whatever heating system you have in your home, its efficiency will be greatly improved by ensuring that you have good insulation.

Here are some ideas to help you reduce heat loss from your home.

Loft insulation

Frequently on a home, the biggest source of heat loss - up to 25% - is through the roof so make sure that your loft is properly insulated. The good news is that this can be a cost effective DIY job which can be done in just a few hours. Before you start make sure you have the appropriate protective clothing. Gloves and a face mask are essentials when using insulating materials.

Government research gives a recommended depth for loft insulation as 270 mm, so check that your existing insulation is thick enough.

Measuring up for loft insulation

Lay down some chipboard loft panels to allow you to work safely without having to balance on ceiling joists.

Measure the gap between the ceiling joists. Standard joists are usually about 370mm apart and rolls of glass mineral wool insulation are usually sold in 370mm widths to fit that standard.

Count how many spaces there are between the joists and the length of your loft to calculate how many rolls of insulation you'll need.

For wider joist widths of 600mm use Combi Loft Roll which is perforated for either 400mm or 600mm widths.

Laying the insulation

Wearing gloves and a face mask, lay the insulation to a depth of 100mm at first. Starting at the farthest corner, unroll the first length so that it fits between the ceiling joists.

Leave a minimum of 25mm gap between the insulation and the roof covering at the eaves to provide ventilation to the roof space.

Once you have completed one layer, lay further rolls until you have the recommended minimum depth of at least 270mm

Insulation works by trapping air in the insulation material so try not to squash it as you will reduce its effectiveness.

If you want to board part of the loft, do this above the initial 100mm layer of insulation. Use an insulation board such as a 'Space Board' in these areas.

Warm air can escape through an uninsulated loft hatch, so cut a piece of insulation material to the size of your hatch and tape or tack it to the back of the loft hatch.

Leaving spaces around electrics

For safety and access, electrical wiring should be laid over the top of the insulation and not buried beneath it. Always leave a minimum of 75mm of space around any recessed ceiling lights so they don't overheat.

Lagging your pipes and tanks

Once the floor of your loft is well insulated it traps cold air in the space above, so it is important that exposed water pipes are protected by wrapping them in foam tube insulation which is ready cut to be slipped over the pipes.

If your cold water tank is in the loft, leave the area under it free of insulation to stop the water freezing. Wrap insulation around and over the cold water tank, fixing it with string or tape.

Draught proofing

External doors

Make sure your front door only has a 2mm or 3mm gap at the top and sides and a 5mm gap at the bottom.

Self-adhesive foam or flexible vinyl strips can be used to seal around the edges and top of the door frame.

Use a draught excluder to seal the bottom of any external doors. These plastic or metal strips have a rubber seal or rows of nylon bristles to keep the cold out. The seal or bristles must overlap the door frame.

If there is air coming through the letterbox when it's closed, fit a letterbox draught excluder.

Insulating under a new floor

If you are planning to lay a new floor covering, there are more potential insulation savings to be had depending on the composition of your floor. If possible, take the opportunity to lift your floorboards at the same time and fit glass mineral wool insulation between the floor joists.

The cost for this could be recouped through lower energy bills in just a couple of years. This can be a more difficult project than the loft savings and will need a little more research.

Double glazing

Double glazing may be a considerable investment, but it has great instant results. You can halve heat loss through your windows.

By replacing old windows and doors you will immediately achieve considerable savings on your heating costs as today's modern systems provide greater thermal insulation qualities.

Watch out for our forthcoming feature on the benefits and value windows and conservatories can add to your home.

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