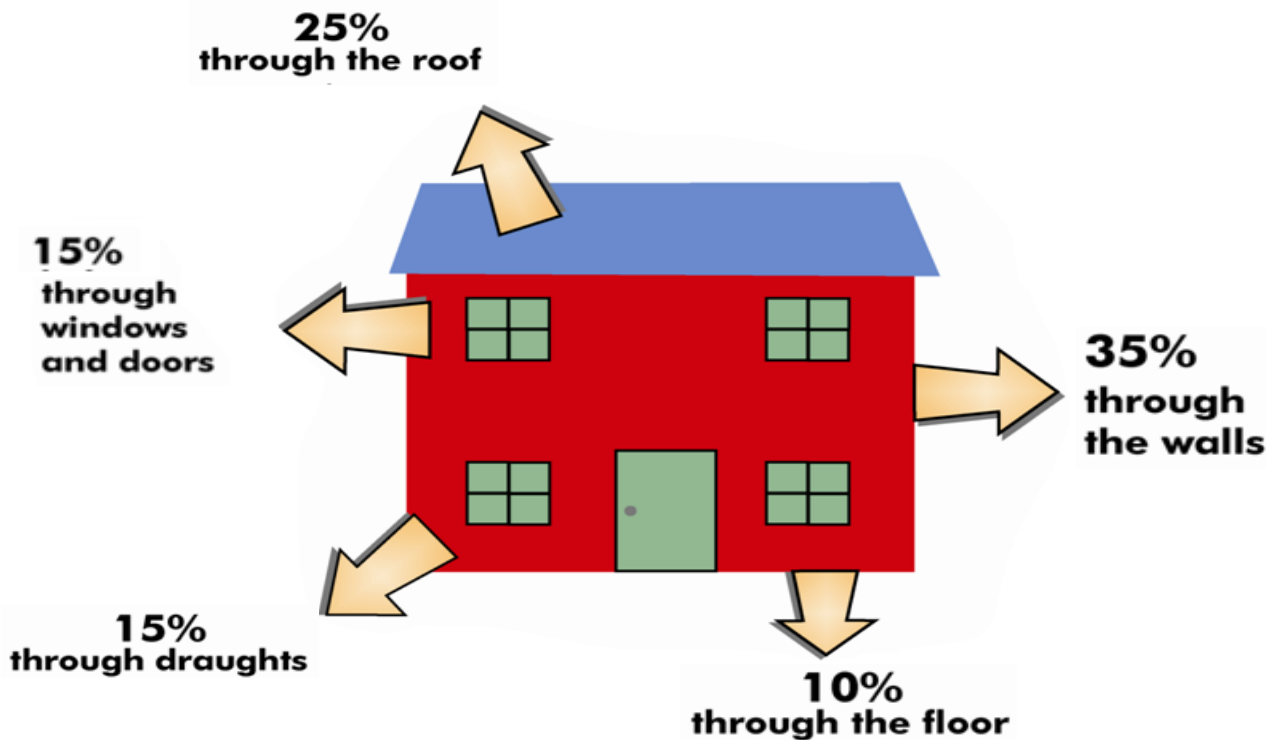




# Insulation as a Home Improvement



## Heat Loss from a Home



Keeping warm involves stopping heat escaping and then using as little fuel as possible to produce the heat



# SUGGESTIONS and TIPS



To reduce heat loss from a house you can

- Fill gaps to **prevent draughts**
- Install **loft insulation** in your roof space
- **Fill cavity wall** spaces with insulation
- **Replace windows** with latest double glazing
- Install **under floor** insulation
- On solid walls, install **internal dry-lining**

Obtain an energy performance certificate  
to start developing a plan!

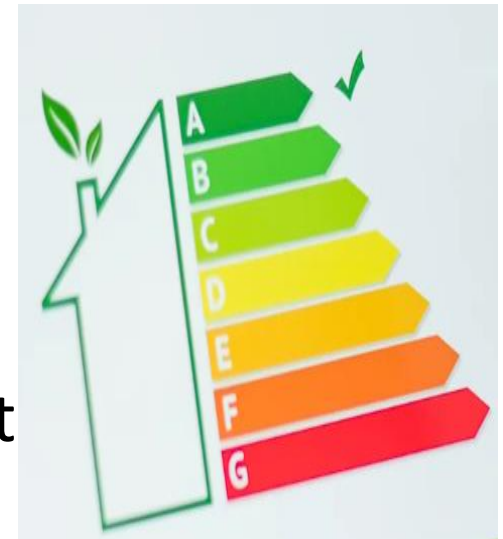


# Insulation as a Home Improvement



## Energy Performance Certificates

- Energy Performance Certificates or EPCs tell you how energy efficient a building is and give it a rating from A, very efficient, to G, very inefficient
- EPC tells you how costly it will be to heat and light your home (based on energy costs at the time EPC was done), what its carbon dioxide emissions are, and what can be done to reduce energy use





# SUGGESTIONS and TIPS



1. Look for your EPC online <https://www.gov.uk/find-energy-certificate> and check that is still in date
2. Obtain an EPC if your house does not have one
3. Read its recommendations for measures to improve your home and its EPC rating
4. Discuss them with the landlord, if you do not own the property. A good EPC rating will help to rent or sell the property in future.
5. [www.gov.uk/improve-energy-efficiency](http://www.gov.uk/improve-energy-efficiency) suggests energy saving improvements using the home's EPC



# Insulation as a Home Improvement



IH 3

## Roof and loft insulation

- Check whether you have enough loft insulation-- 270mm (about 11") recommended
- Produce significant savings on your energy bills
- Easy and quick to install
- Keep the heat in your home





# SUGGESTIONS and TIPS



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## Roof and Loft insulation

- If loft suitable, roll out insulation between joists
- Add floor boards for storage above the insulation making sure insulation is not squashed
- Leave enough space for ventilation and don't cover any vents or air bricks
- Get professional advice if there is any damp in loft
- Check out Energy Saving Trust's [Roof and Loft Insulation](#) for more information



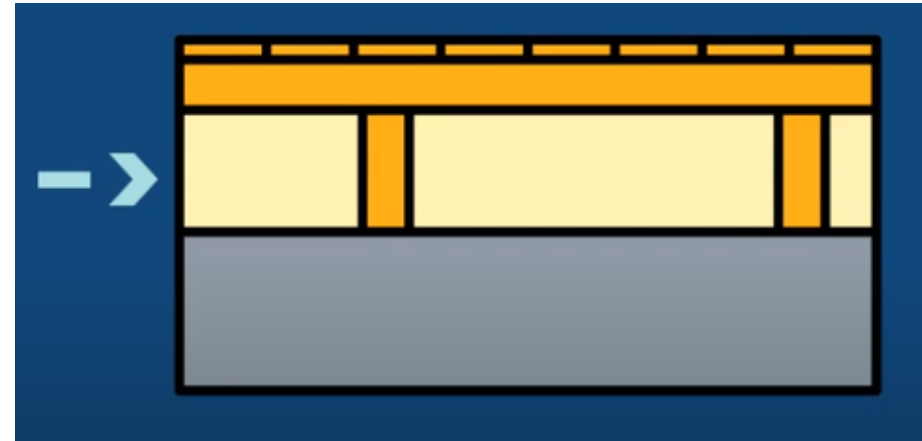
# Insulation as a Home Improvement



IH 4

## Floor insulation

- Floor insulation is an extra barrier between the cold ground and your home
- Insulate under suspended timber floors
- Insulate on top of solid concrete floors
- Using a thick carpet a lower cost alternative





# SUGGESTIONS and TIPS



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## Floor insulation

- Seal up gaps between floor boards and skirting boards
- Check whether you have timber or solid ground floor
- Investigate mineral wool insulation under timber floors
- Add rugs and carpets to floors
- Do not block any vents or air bricks
  
- Check out Energy Saving Trust's [Floor Insulation](#) for more information





# Insulation as a Home Improvement



## Wall insulation

Uninsulated walls account for 35% of a house's heat loss

### Solid wall

Typical in pre 1930 properties.

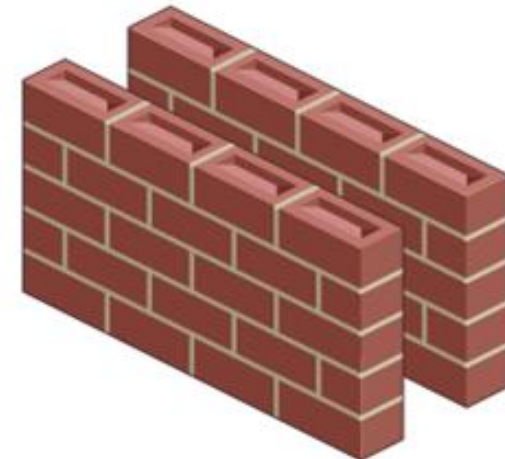
'Thick-thin' brick pattern



### Cavity wall

Typical in since 1930s

Even brick pattern





# SUGGESTIONS and TIPS



## Wall Insulation

- You need to know what sort of walls you have.
- Uninsulated solid walls are only about 22 cm thick
- Cavity walls are about 27cm thick. If the cavity has been filled, there will be circles of mortar marking the drill holes
- Check out Energy Saving Trust's [Solid Wall Insulation](#) for more information





# Insulation as a Home Improvement



IH 6

## Cavity wall insulation

- Involves blowing mineral wool, insulation beads or foam into cavity between walls
- Average 3-bed gas-heated semi can save **£315**/year
- Your annual savings should cover the installation cost in three years or less





# SUGGESTIONS and TIPS



## Cavity Wall Insulation

- Find an installer who has CIGA Warranty  
[ciga.co.uk/registered-installers](http://ciga.co.uk/registered-installers)
- Cost **about £1000 for a semi**. Grants may be available for the work and your installer should know about them
- Installers should inspect walls with a camera before filling



# Insulation as a Home Improvement



## External insulation of solid walls

- External wall insulation involves fixing a layer of insulation material to the wall, then covering it with a special type of render (plasterwork) or cladding
- The finish can be smooth, textured, painted, tiled, panelled, pebble-dashed, or finished with brick slips.
- Savings ~£540 per year for a 3 bed semi
- Breathability of the wall must be considered, so as to not seal in moisture!





# SUGGESTIONS and TIPS



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## External insulation of solid walls

- External insulation will cost less if you're having other work done to the outside.
- Having scaffolding up already will save costs
- If your walls need repointing or other repair work, it's worth getting a quote for a complete refurbishment including insulation
- Check out Energy Saving Trust's [External wall insulation](#) data sheet for more information



# Insulation as a Home Improvement



IH 8

## Interior insulation of solid walls

- Is generally cheaper to install than external wall insulation
- Will slightly reduce the floor area of any rooms in which it is applied
- Will require plastering, redecorating and resitting radiators and electrics
- No need to insulate walls that adjoin another room or another house





# SUGGESTIONS and TIPS



## Interior insulation of solid walls

- Important to get advice from an architect to avoid condensation problems
- Cannot be done before fixing any problems with penetrating or rising damp
- Internal insulation or 'dry lining' can be done DIY and one room at a time. Start with the main living room.
- Check out Energy Saving Trust's [Internal wall insulation](#) information sheet







# Insulation as a Home Improvement



IH 9

## Double glazing windows and doors.

- Reduces heat loss, condensation and noise
- New units can be plastic or wood
- A set of A-rated windows for a semi-detached house will typically cost around £7,500
- Replacing single with double glazing in a semi could save £195 a year



See more detailed advice at <https://energysavingtrust.org.uk/advice/windows-and-doors/>



# SUGGESTIONS and TIPS



## Double glazing windows and doors

- Choose a colour that goes with rest of the house
- Design to match other houses in the street
- Consider ventilation, especially kitchen and bathroom
- Can have opaque glass for privacy
- Check out Energy Saving Trust's [Windows and doors](#) for more information