

# DIY in a day: Loft insulation

## Everything you need to get started

This guide includes everything you need to install insulation to an uninsulated loft, with a pitched roof, at ceiling level. This means you will be laying insulation on the 'floor' of your loft space.

### Is my loft ready for insulating?

If your loft.

- ✓ Can be safely accessed
- ✓ Has joists strong enough to take your weight
- ✓ Does not have damp
- ✓ Has a pitched roof
- ✓ **You can insulate it yourself**
- ✗ Has rotten or deteriorating joists
- ✗ Has damp
- ✗ Has a flat roof
- ✗ **You need a professional installer**

If you're unsure about the complexity of your installation, seek professional advice.

### A few important things to check:

#### WATER TANKS AND PIPES

If you have a water tank in your loft, it should be fitted with an insulation jacket, to prevent freezing. Pipes should also be covered by appropriate pipe insulation materials.

#### LOFT HATCH

Check if your hatch already includes a layer of foam insulation. If not, you'll need to insulate this area too.

#### STORAGE

Make sure you've removed any stored items, so your loft is empty. If you plan to store belongings in your loft, these should sit on top of loft boards, to avoid compressing your new insulation.

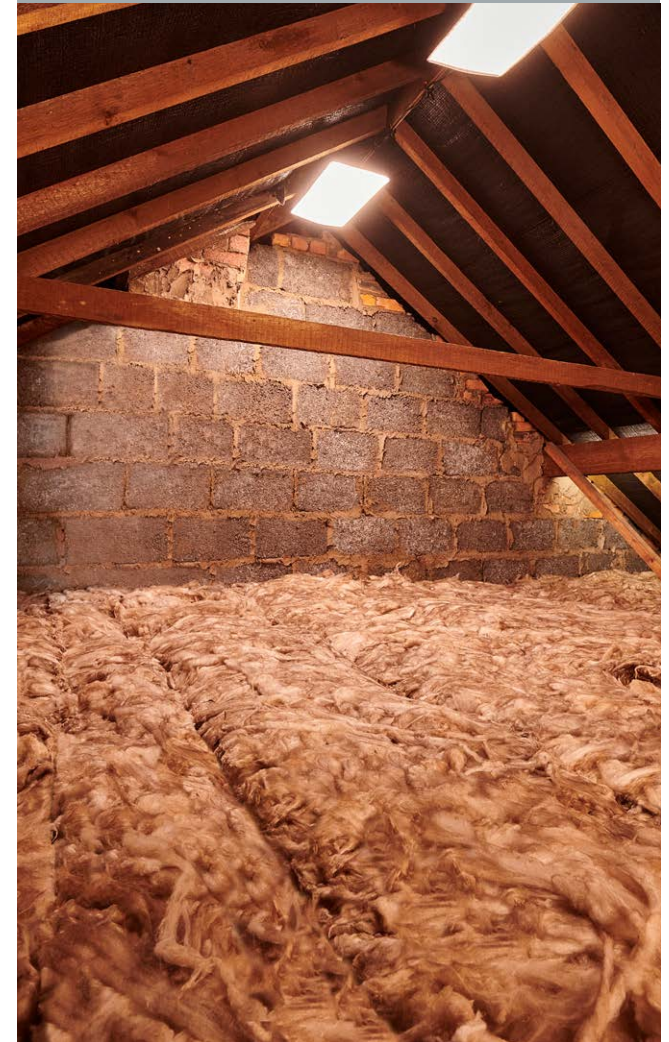
See the Knauf Insulation [knauf.com/en-GB/customer-types/homeowners](https://knauf.com/en-GB/customer-types/homeowners) for more info.

#### SERVICE PENETRATIONS

Things like lighting fixtures, cables, extractor fans, soil pipes, and the top of wall partitions can create gaps, allowing air to leak into the loft from the room below. To prevent these gaps from compromising your thermal performance, seal them with a high-quality sealant and tape, available from the Passivhaus store: [phstore.co.uk](https://phstore.co.uk).

Rubber grommets can also be used to create a seal around lighting cables.

Note: If your loft is part-insulated and you want to 'top-up', please adjust the thickness of your insulation and number of rolls accordingly (more information on next pages).



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**KNAUF**INSULATION

## HEAT PRODUCING FIXTURES (including recessed lighting)



These should be isolated so they do not touch your insulation. Make sure non-combustible protection covers are installed over any downlights, to stop them overheating and becoming a fire risk. Always follow the manufacturer's instructions when installing downlight covers.

## ELECTRICAL CABLES



Any cables under a high electrical load (for example feeding an electric shower) must be long enough to be laid on top of the full depth of insulation, as covering them creates a fire risk.

If you're unsure whether your cables are appropriately sized for their load, speak to an electrician. If in doubt, always rest cables on top of insulation.



## What sort of insulation do I need?

Choose insulation that's been specifically designed for lofts – we recommend **Knauf Insulation Loft Roll 44** (or Eko Roll if purchasing at B&Q and Space Loft Roll if purchasing from Wickes).

Our non-combustible Glass Mineral Wool roll is manufactured using mainly recycled glass bottles and jars. It also uses our unique bio-based binder, **ECOSE® Technology**, which contains no added formaldehyde or phenol, so it's soft to touch and more pleasant to handle, and produces low levels of dust and volatile organic compounds.

It's also compression packed and lightweight, so you won't struggle getting it into the car or up to the loft!

Our Loft Roll products are available at most DIY retailers and local merchants, and we'd recommend picking up our 'combi-cut' option, which is pre-perforated to make cutting to size easier.

with **ECOSE®**  
TECHNOLOGY



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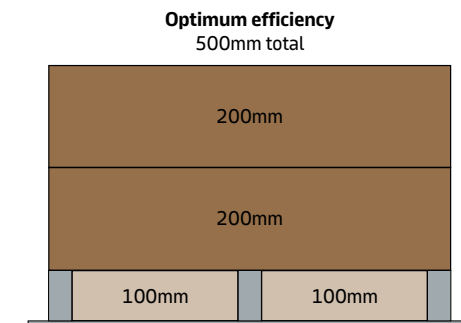
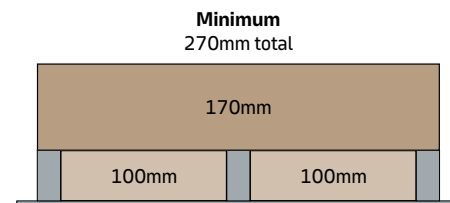
## What thickness should I get?

You'll need to fit at least two layers of insulation to your loft. Your loft insulation should be a minimum of 270mm deep (350mm in Scotland), but the more you add, the more energy you'll save. In new build properties, it's common to see up to 500mm of loft insulation used for maximum impact.

The first layer should be 100mm thick, to fit between the joists.

You can use 100mm Loft Roll 44, Eko Roll (B&Q) or Space Loft Roll (Wickes) for this.

You'll then use thicker versions of the same products in subsequent layers to bring your loft up to the full thickness required (e.g., a 170mm or 200mm layer of Loft Roll 44 on top).



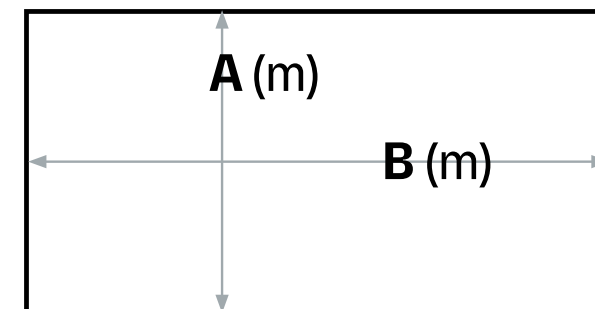
## How many rolls should I buy?

Measure the width and length of your loft (including the eaves), then multiply one by the other, to find the area. Use the 'area per pack (m<sup>2</sup>)' on the product label to calculate how many rolls you'll need for each layer of insulation.

**TIP:** Add approx. 30cm to your length measurement, where your base layer enters the eaves (i.e., if you have eaves on two sides of your loft, add 60cm to your length). This will give you a little extra to drop down and meet your wall insulation, maximising performance.

### Measure the gap between your joists

This will tell you whether to use the full width of your roll, tear it at the perforations or cut it to a bespoke size. Measure from the right-hand edge of one joist, to the right-hand edge of the neighbouring joist. Repeat this with at least two sets of joists.

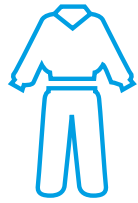


$$A (m) \times B (m) / \text{Area per pack (m}^2\text{)} = \text{Rolls needed}$$

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## What equipment do I need?

Make sure you have these things ready before you begin:



Overalls  
(optional)



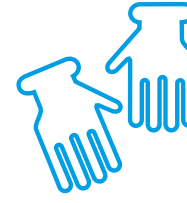
Dust mask  
FFP1 minimum



Safety glasses



Bump cap



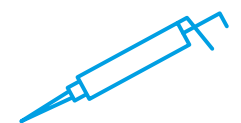
Protective gloves



Hand brush



Tape

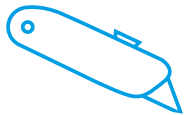


Sealant + Sealant Gun

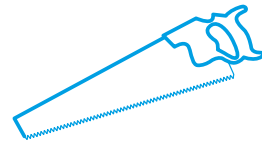
### If sealing around penetrations:



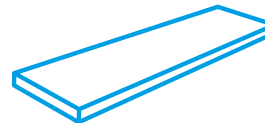
Tape  
measure



Retractable  
knife



Fine toothed  
handsaw



Crawl boards  
(at least one board, long  
enough to span three joists)



Knauf Insulation loft rolls  
(Loft Roll 44, Eko Roll or  
Space Loft Roll)



Draught  
stripping



Hammer and  
small panel pins



Heavy duty  
plastic



Ear  
defenders

### If insulating a loft hatch:

## Ready to go?

Visit [knauf.com/en-GB/customer-types/homeowners](https://knauf.com/en-GB/customer-types/homeowners) for more information!