



therma
fleece®

Show your loft
some love and let
it breathe.

Insulating your loft with CosyWool Roll

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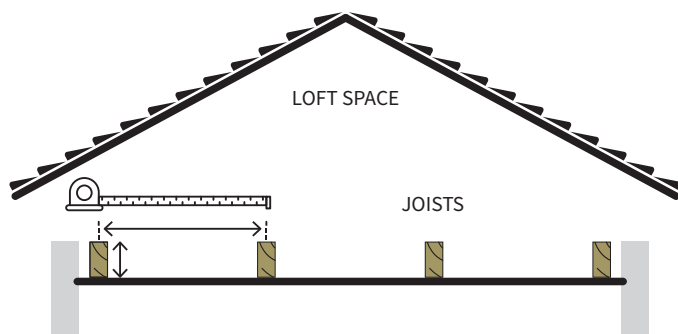
Before you buy your insulation you need to measure your loft to establish the total area to be insulated to ensure you are purchasing the correct quantity. In addition to this, you need to establish the product dimensions required.

Insulating your loft with CosyWool Roll is a great DIY project because it's made from British sheeps wool, meaning it doesn't itch and is safe to handle without gloves.

Here is a simple, step-by-step guide to help you get the job done correctly and safely.

1. Prep Work: Measuring & Checking

- **Measure the total area:** Multiply the length of your loft by the width to get the total square metre area. Measure the area of your loft hatch in square metres and deduct this from the loft area. It is best to measure in metres because insulation is sold by the metre or square metre.
- **Establish Product Dimensions:**
 - **Measure between the joist:** Joists are the horizontal timbers that support the ceiling below whereas rafters are the pitched timbers that support the roof. Check the distance between your joists so you can buy the correct width of insulation rolls or the nearest to it. To ensure a snug fit, measurements should be taken from the centre of one joist to another. This will ensure the insulation fills the space with no gaps.
 - **Measure the depth of the joist:** Check the distance from the top of the joist to the bottom of the joist. This will give you the depth of insulation needed for the base layer.



- **Check existing insulation:** You can install CosyWool Roll directly onto old insulation as a "top up" providing the old material is in good condition and is not hiding any damp or structural damage.

- **Total depth of insulation recommended:** For an existing uninsulated loft, we recommend 240mm CosyWool Roll. If you have existing insulation within your loft and you are topping up, we recommend you full fill between your joists on top of any existing insulation then cross-lay over the joists as illustrated. The total depth may exceed 240mm as other types of insulation require greater depths to achieve the same performance as CosyWool Roll. If you have an historic property you will need to demonstrate an improvement on existing performance which may involve insulation between your joists. Your local building conservation officer can advise further about this. At the end of this document, we have included tables detailing insulation depths for your guidance.
- **Calculate total insulation quantities:** For the base layer choose the best width and depth to fully fill the joists. Deduct 10% for the joists from the total square metre area you have calculated which will give you the total area needed for the base layer. For the top layer use the original total area of the loft to determine how much insulation you need. Typically the top layer will be 140mm deep. We recommend 570mm wide CosyWool Roll for the top layer because it doesn't have to fit between anything.

2. Pre-Check: Is Your Loft Ready?

If you find any of the following, fix them before you add insulation:

- **Leaks:** Look for damp spots or light coming through the roof.
- **Structural Issues:** Check for rotting wood or rusted metal joints.
- **Asbestos:** If you see old, grey, fibrous material around pipes or tanks, do not touch it. Call a professional.
- **Creatures:** If you find bats or nesting birds (protected species), seek expert advice.

3. Important Safety & Electrical Rules

Insulation traps heat, which can be a fire hazard if electrical components don't have adequate ventilation.

- **High-Power Cables:** Never cover cables for showers, cookers, or immersion heaters. Lift them so they sit on top of the insulation.
- **Downlights:** Do not lay insulation directly over recessed lights unless they are insulation safe. Use "downlight covers" or loft caps to create a safe air space. We recommend you speak with your lighting supplier or a qualified electrician for further advice.
- **Heat Sources:** Keep insulation at least 150mm (6 inches) away from chimneys or hot flues.

4. How to Install the Insulation

For the recommended energy efficiency, aim for a total thickness of at least 240mm.

Step 1: The Base Layer

- Lay the first layer of CosyWool Roll between the ceiling joists.
- Ensure the ends of the rolls press tightly against each other (close-butted) so there are no gaps.

Step 2: The Top Layer (Cross-Laying)

- Lay the next layer across the joists (at a 90-degree angle to the first layer).
- This "cross-laying" covers the joists themselves, reducing heat escaping through the timber.

Step 3: Don't Block the Airflow

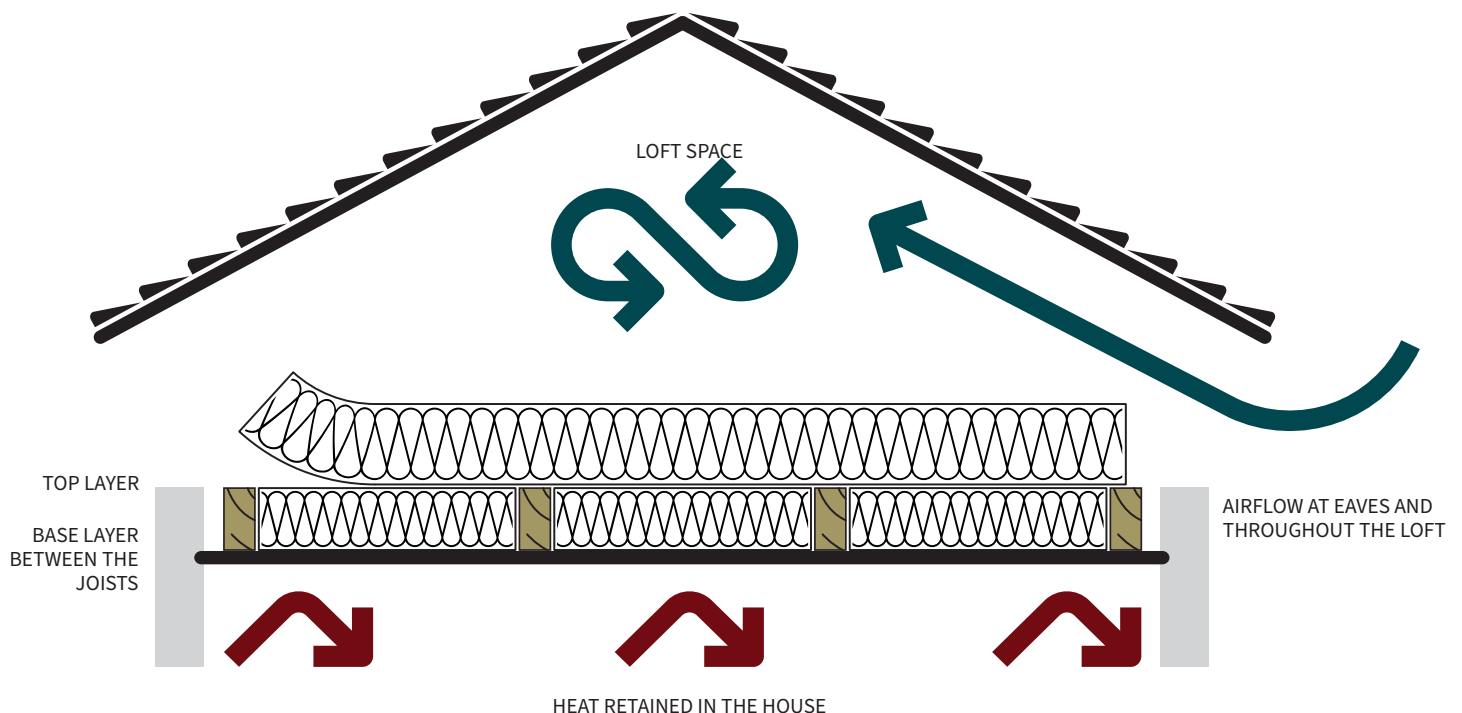
- Your roof needs ventilation to prevent rot and mould. If you have impervious felt or sarking boards over the rafters then you will need to ensure adequate ventilation at the eaves. This may not be necessary if you have a breathable membrane over the rafters.
- Push the insulation toward the edges (the eaves), but do not block the gaps that let fresh air in. If the gaps are already blocked, clear them before you start. You may wish to consider installing ventilation trays or roof vents if ventilation needs to be improved.

5. Special Areas

- **Insulating the loft hatch:** An uninsulated or poorly sealed loft hatch can reduce the overall thermal efficiency of your loft insulation.

Cut a piece of insulation to match the width and length of the loft hatch. Once cut to size, adhesive or strong double-sided tape to secure the insulation to the loft-facing side of the hatch.

- **Water Tanks:** Do not insulate the floor directly under your water tank. You want a small amount of heat from the house to rise up and prevent the tank from freezing. Instead, wrap insulation around the sides of the tank.



7. Insulating a boarded loft

Thermafleece can be used alongside loft legs to create a boarded storage area whilst maintaining the recommended depth of insulation and thermal efficiency.

We recommend full filling the base layer of insulation between the joists. Fit the loft legs to the joists in accordance with the manufacturer's instructions then cross-lay the top layer of insulation between the loft legs before boarding over.

Care should be taken to avoid gaps in the insulation around the loft legs. The use of loft legs helps maintain the full depth and performance of your loft insulation by preventing compression beneath loft boards or stored items.

7. Checklist

- ☐ **Measurement:** Did you calculate the area and joist width accurately?
- ☐ **Ventilation:** Can air still flow freely through the eaves?
- ☐ **Wiring:** Are heavy-duty cables visible on top of the insulation?
- ☐ **Gaps:** Are all pieces of insulation snug against each other?
- ☐ **Lights:** Are downlights protected by approved covers?

8. Insulation Depth Tables

Fully insulating with CosyWool Roll insulation.

INSULATION DEPTH (mm)			CosyWool Roll Insulation
			λ 0.039 W/mK
Between Joist	Over Joist	Total Depth	U-value W/m ² K
100	140	240	0.16
100	200	300	0.13

Topping up with CosyWool Roll insulation

INSULATION DEPTH (mm)			CosyWool Roll Insulation
			λ 0.039 W/mK
Existing Insulation	Additional CosyWool Roll Insulation	Total Depth	U-value W/m ² K
75	200	275	0.14
75	140	215	0.18
100	200	300	0.13
100	140	240	0.17
125	200	325	0.13
125	140	265	0.16
150	200	350	0.12
150	140	290	0.15

9. Further help & advice

For further information please contact us at the address below.