



Energy efficiency measures – Loft insulation

Scope

- This training module is aimed at HomeWorks registered tradespeople who are acting as Low Carbon Ambassadors (LCAs) to provide basic energy efficiency advice to homeowners
- It is one in a series of training modules aimed at LCAs:
 - Introduction to domestic retrofit
 - What is HomeWorks?
 - Understanding an EPC (Energy Performance Certificate)
 - Energy efficiency measures (EEMs):
 - Low/no cost measures
 - Loft insulation
 - Draught-proofing
 - Cavity wall insulation
 - Solid wall insulation
 - Replacement windows
 - Boiler replacement









EEMs – Loft insulation - Learning outcomes

- The learning outcomes of this training module are to summarise:
 - The approach for insulating a loft
 - The typical installation costs and energy savings as well as other benefits
 - The barriers to installing loft insulation and how to solve them
 - The associated risks and how these can be managed
 - The simple survey that can be done to help the Retrofit Coordinator







Loft insulation - Description

- If loft insulation is less than 200mm deep then worth adding more
- Use mineral wool rolls if loft has easy access and has no damp or condensation problems
- Lay first layer between joists then another layer at right angles to cover joists to required depth
- Continue insulation over cold water tank and insulate pipes
- Householders confident with DIY can undertake work
- TrustMark registered installers will follow requirements of PAS 2035 Standard







Loft insulation – Typical installation cost

- Required insulation depth is 270mm
- Costs to insulate uninsulated loft and also to provide top-up insulation (from 120 to 270mm) in four key house types:



Figures taken from Energy Saving Trust (EST)





Loft insulation – Annual energy saving

• Annual energy saving and payback by insulating uninsulated loft and providing top-up insulation



Figures taken from Energy Saving Trust (EST)

Loft insulation – Other benefits

- Reduced carbon dioxide emissions
- Improved thermal comfort
- Reduced draughts
- Reduced risk of surface condensation





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Loft insulation – Barriers to installation

Barrier	Solution		
Items already stored in loft	 Offer to remove items Opportunity to sell items or give them to charity 	RECYCLE FOR CHARITY	
Difficult to access loft	Install loft ladder	With the second secon	Source: loftleg.com
 Reduced storage space after installation Squashed insulation material 	Install floor boardingInstall storage platform		



Loft insulation – Associated risks

Freezing water pipes

• Insulate water pipes and tanks

Condensation in loft

• Reduce moisture going into loft by sealing around loft hatch, service pipes etc. and ensure adequate ventilation in loft as well as bathroom and kitchen

Fire from over-heating electrical cables

- Ensure electrical cables are adequately rated or suitably routed
- These risks and others will be identified and managed by the Retrofit Coordinator as part of PAS 2035





Loft insulation – Further information

- Further information can be found on the Simple Energy Advice (SEA) website at: <u>https://www.simpleenergyadvice.org.uk/measures/meta_loft_insulation</u>
- The SEA site includes a short video describing loft insulation: <u>https://www.simpleenergyadvice.org.uk/pages/insulating-your-loft</u>
- It also has information on other roof types (i.e. room-in-the-roof and flat roof)