



Energy efficiency measures – Draught-proofing

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





HomeWerks

EEMs – Draught-proofing - Learning outcomes

- The learning outcomes of this training module are to summarise:
 - The difference between the need for controlled ventilation and impacts of uncontrolled draughts
 - The typical air leakage paths in a home where draughts occur
 - The approach for sealing leakage paths
 - The materials used to seal leakage paths and the locations they are used
 - The costs and benefits of draught-proofing









Ventilation vs Draughts

- Homes need controlled ventilation to:
 - Reduce condensation and damp
 - Disperse indoor pollutants
 - Provide adequate air supply for boilers etc.





- But, uncontrolled draughts:
 - waste heat and money as warm air is lost and cold air coming in is heated up
 - can make home feel cold and uncomfortable







- Windows and doors
- Letter boxes
- Service pipes
- Floorboards
- Loft hatches
- Light fittings etc.













Sealing leakage paths - Approach

- Draught-proofing involves sealing gaps and openings using appropriate materials
- Can be done by householders competent in DIY but professional installers available
- Address damp or condensation issues in room first, e.g.
 - reduce incidence of drying clothes
 - extend use of extract fans
 - ensure window trickle ventilators are open etc.
- Do <u>not</u> block or close purpose-built ventilation openings such as air bricks, wall vents and window trickle ventilators
- Installing double glazing focuses on heat loss through glass for further details see module *Replacement windows*









Sealing leakage paths – Materials, locations and application

Material	Locations	Application
Self-adhesive foam strip	WindowDoorLoft hatch	 Select thickness to fit gap Clean surface with damp cloth Cut to length Stick to surface that window, door or hatch closes against
Metal/plastic strip (with brush or wiper attached)	DoorWindow	 Cut to length Screw to bottom of door Stick around window frame Sash windows need brush strips
Gun-applied sealant	 Skirting board Floorboards Small hole around service entries 	 Ensure surfaces free from dirt and dust Squirt between skirting board and floorboard, and between floorboards Squirt into hole around pipe
Foam sealant	Large hole around service entries	 Squirt deep into hole around pipe Take care as expands rapidly Could be used with other sealant









Draught-proofing – Costs and benefits

- Costs:
 - Professional draught-proofing costs around **£200**
 - DIY cost is just materials which are readily available
- Benefits:
 - Save about £20 per year
 - Improved thermal comfort
 - Reduced carbon dioxide emissions



TRUSTMARK Government Endorsed Quality PLMR COM







Draught-proofing – Further information

 Further information on draught-proofing can be found on the Energy Saving Trust (EST) website at: <u>https://energysavingtrust.org.uk/home-insulation/draught-proofing</u>

- The Simple Energy Advice (SEA) website has:
 - Draught-proofing video: <u>https://www.simpleenergyadvice.org.uk/pages/draught-proofing-your-home</u>
 - Register of draught-proofing installers to search: <u>https://www.simpleenergyadvice.org.uk/installer-search/D</u>