

Home Energy Grants: Technical Bulletin

Attic Insulation Installation Guidance

Series 2023-03-002 AI

Installation Guidance for Attic Insulation

This technical bulletin outlines common reworks noted by SEAI during inspections of attic insulation installation works. The methods described below are intended as guidance. All measures must be installed as per the Domestic Technical Standards and Specification (DTSS) and in accordance with the Contractors Code of Practice.

Please see the Contractors Support page for further information:
<https://www.seai.ie/grants/supports-for-contractors/>.

Please consult **Appendix 2 of the Quality Assurance and Disciplinary Procedures (QADP) document** before commencing any grant aided works on the Better Energy Homes (BEH) Programme as it contains a full list of checklists, used by SEAI inspectors, for each individual measure. These checklists should be used for each measure as a form of mini audit on your own work to ensure that all installations do not meet any of the non-compliances listed, prior to completing and signing the Declaration of Works (DoW) form.

In this technical bulletin for attic insulation installation work, the following high occurring non-compliances will be highlighted with suggested corrective action.

Non-Compliances and Notes covered in Technical Bulletin:

1. **Pipe Insulation** – The use of 9mm insulation on pipes in attics. Checklist item HA) PIPE INSULATION – (1) Not to Scheme Standard.
2. **Electrical** – High powered cables covered by insulation. Checklist item O) ELECTRICAL – (3) High Powered Cables Covered.
3. **Ventilation** – Mechanical Extract Ventilation (MEV) fan ducting into attic space or into closed roof soffit instead to outside of house. Checklist item N) VENTILATION – (5) Insufficient Ventilation.

1. Pipe insulation

Leading Non-Compliance for Attic Insulation Installation	
Non-Compliance Checklist item =	HA1/HA3 Pipe Insulation (Not all Pipes Insulated/Not to Scheme Standard)
Most Frequent Detail Causing Non-Compliance =	The use of 9mm Pipe Insulation

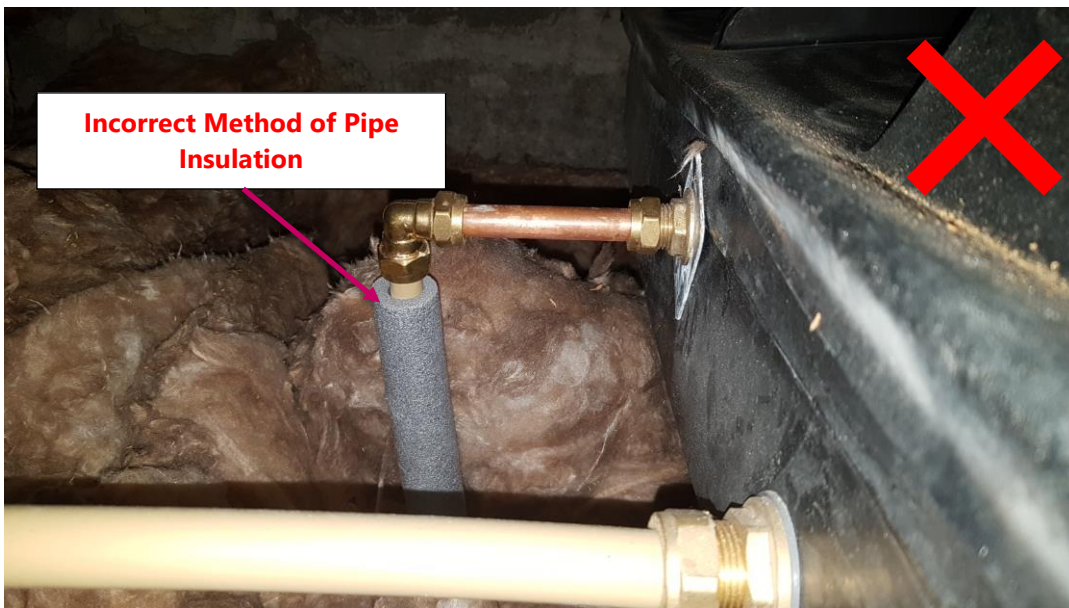


Figure 1: Example of Incorrect Insulation Method – the use of 9mm Pipe Insulation

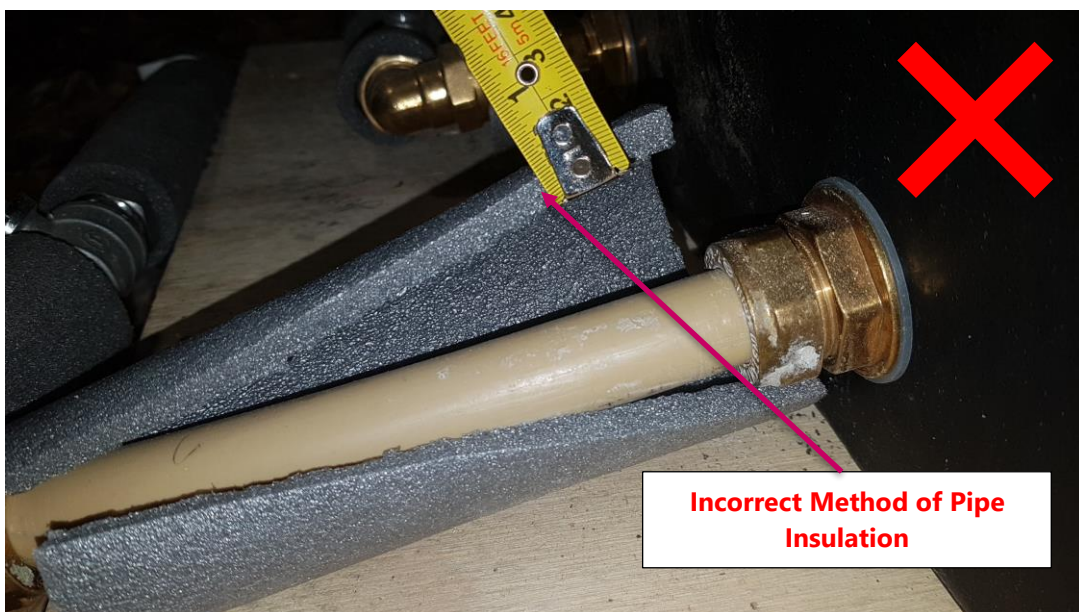


Figure 2: Example of Incorrect Insulation Method – the use of 9mm Pipe Insulation on Pipe connected to Water Storage Tank

Corrective Action for Attic Insulation Installation Non-Compliance	
Non-Compliance Checklist item =	HA1/HA3 Pipe Insulation (Not all Pipes Insulated/Not to Scheme Standard)
Correct Installation Method =	The thickness of the insulation must be greater than the Pipe Diameter

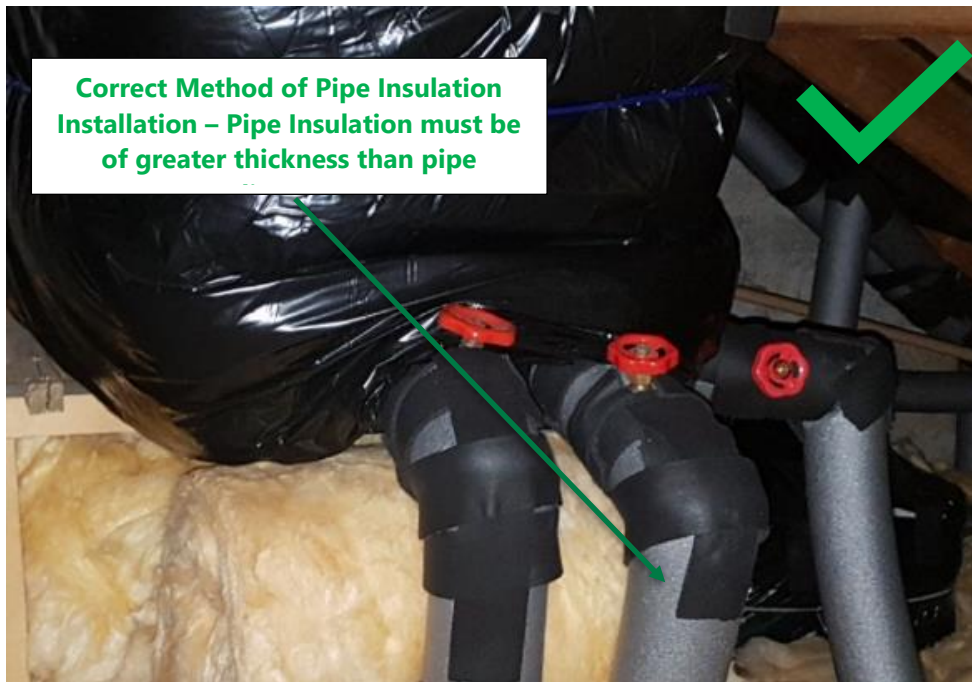


Figure 3: Correct Installation of Pipe Insulation

When it comes to the thickness of insulation on the pipe, the insulation thickness must comply with Appendix Table 1 in Section 6.4.2 in the DTSS and as guided in S.R. 54 *Code of practice for the energy efficient retrofit of dwellings*. As a rule of thumb for installers, it is important to remember that the thickness of the insulation must be greater than the pipe diameter, as shown below.

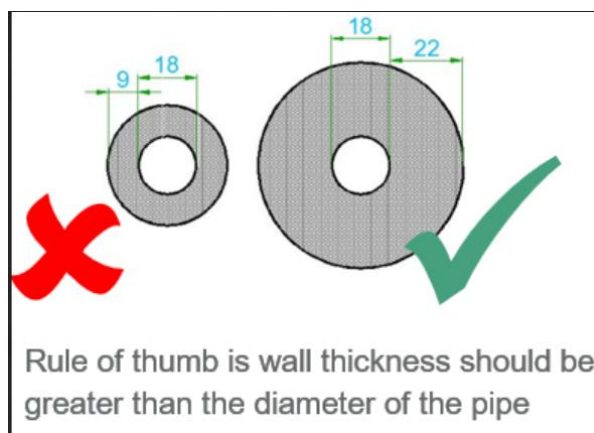


Figure 4: Rule of thumb when applying insulation to pipework within Attic

2. Electrical

Leading Non-Compliance for Attic Insulation Installation	
Non-Compliance Checklist item =	(O) ELECTRICAL – High Powered Cables Covered
Most Frequent Detail Causing Non-Compliance =	High powered electrical cables i.e. shower cables, being covered up by roll out insulation



Figure 5: Example of high-powered cables being covered by Attic Insulation

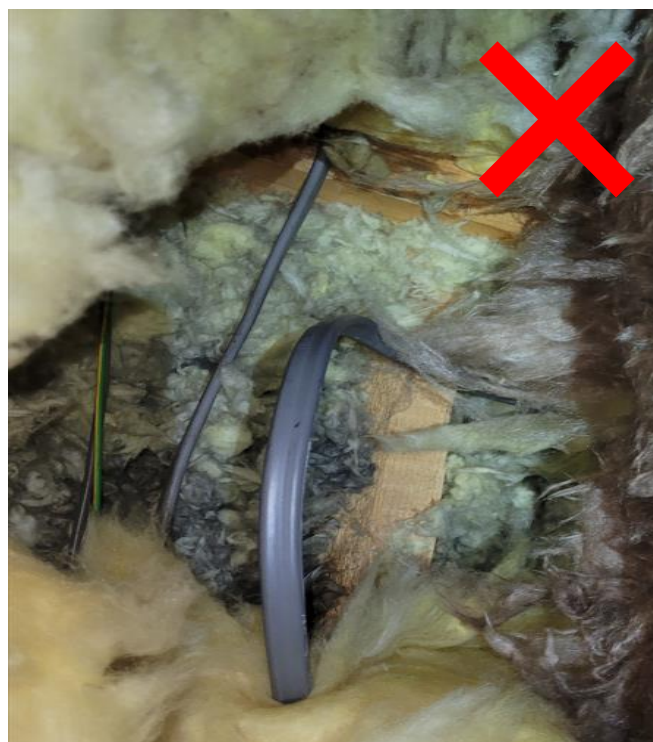


Figure 6: Example of high-powered cables being covered by Attic Insulation

Corrective Action for Attic Insulation Installation Non-Compliance	
Non-Compliance Checklist item =	(O) ELECTRICAL – High Powered cables Covered
Correct Installation Method =	Run any high-powered electrical cables on top of roll out insulation in the attic space

It is essential that any heavy-duty cables (e.g. for cookers or showers) are not covered by the insulation material and should instead be left on top of the new insulation, provided there is enough slack to do so. Where this is not possible, a gap of at least 75mm should be left either side of the heavy-duty cables for their entire length within the attic area.

The insulation material shall be retained at a minimum of 75mm from all electrical apparatus penetrating the ceiling, for example, recessed lighting fittings. Where necessary a permanent physical restraint shall be used.

3. Ventilation

Leading Non-Compliance for Attic Insulation Installation	
Non-Compliance Checklist item =	(N) VENTILATION – Insufficient Ventilation
Most Frequent Detail Causing Non-Compliance =	Mechanical Extract Vent duct terminating in attic space or soffit space without adequate ventilation



Figure 7: Example of Mechanical Extract Vent duct terminating in attic space.



Figure 8: Example of Mechanical Extract Vent duct terminating in attic space

Corrective Action for Attic Insulation Installation Non-Compliance	
Non-Compliance Checklist item =	(N) VENTILATION – Insufficient Ventilation
Correct Installation Method =	Ensure Mechanical Extract Vent ducts to the outside of the house by installing a soffit vent grill or ventilation roof tile

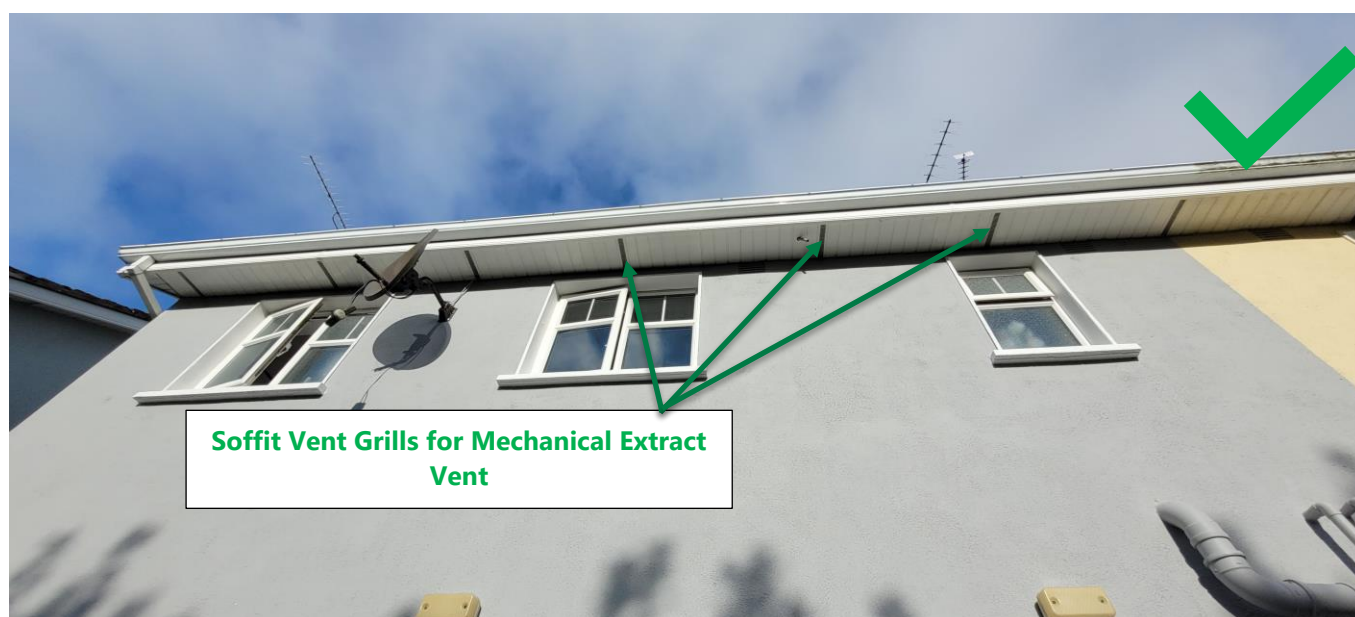


Figure 9: Mechanical Extract Vent ducting to outside of the house where soffit vent grill is installed

The installation of ventilation when it comes to a Mechanical Extract Vent (MEV) must be installed in accordance with the Domestic Technical Standards and Specifications (DTSS) document and also the S.R 54: *Code of Practice for the Energy Efficient Retrofit of Dwellings*.

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