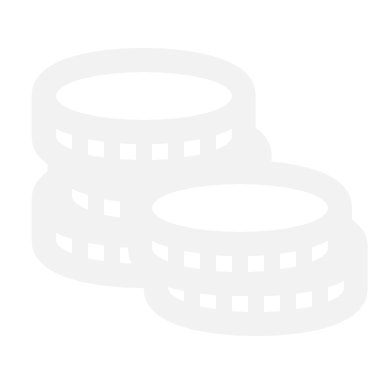
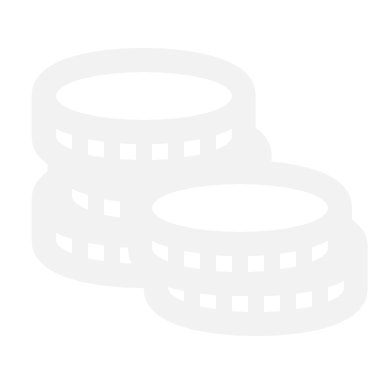
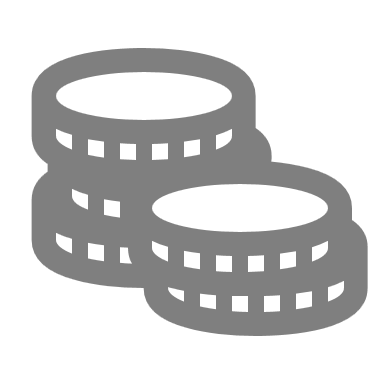
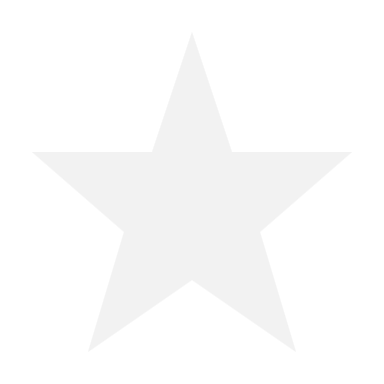
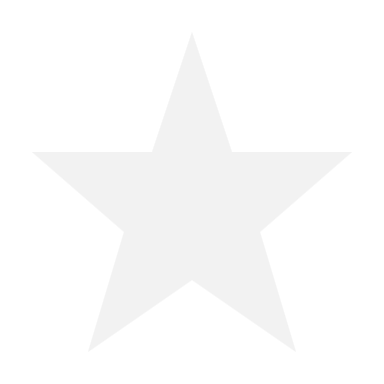
# **FS01: Flat Roof Insulation**

**About**

**Typical costs:**

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**Typical annual savings:**

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* A flat roof can be insulated from either above or below the existing roof. If insulating from above, a new weatherproof layer will need to be added so it is advisable to do this when the roof needs replacing anyway. In general, above roof insulation is preferable as it has lower chance of leading to condensation build-up which can cause damp issues.

**Benefits**

* The insulation maintains your home at a more consistent temperature; making your home feel warmer in the winter and cooler in the summer
* Pay less on your heating bills.

**Key considerations**

* Materials: Flat roof insulation usually uses rigid insulation boards.
* Ventilation: Incorrectly installed flat roof insulation installed below the roof can lead to damp problems so care should be taken to ensure adequate ventilation.
* Permissions: Flat roof insulation does not normally require planning permission. However the insulation installed may be required to meet building regulations. Your installer should know about this but if in doubt, check this with your local authority.
* Installation process: If insulation is installed above the existing roof, it consists of a rigid insulation board placed on top of the weatherproof layer with a new weatherproof layer added on top. If insulation is installed below the existing roof, battens are installed in the ceiling space and the gap filled with insulation material before the plasterboard is replaced. Both methods of flat roof insulation can be difficult and should be carried out by a professional.

**Further information**

* Case studies:
  + [Budapest](http://www.lowenergyapartments.eu/wp-content/uploads/2016/03/LEAF_Case_study_showcase_Hungary_D8.4_Feb16.pdf) (Hungary)
  + [Glasgow](http://www.retrofitscotland.org/case-studies/caledonia-road-hutchesontown-glasgow/?filters=2776) (UK)
* Useful information:
  + [National Insulation Association](https://www.nia-uk.org/) (NIA): Trade Association with list of approved installers
  + The [Energy Saving Trust](http://www.energysavingtrust.org.uk/home-insulation/roof-and-loft): More detailed information about loft and roof insulation.