

Solar Underfloor Heating with Solex Roofing

Solex roofing now makes solar underfloor heating a realistic and cost-effective proposition, as it can provide the large solar collecting areas necessary for space heating applications.

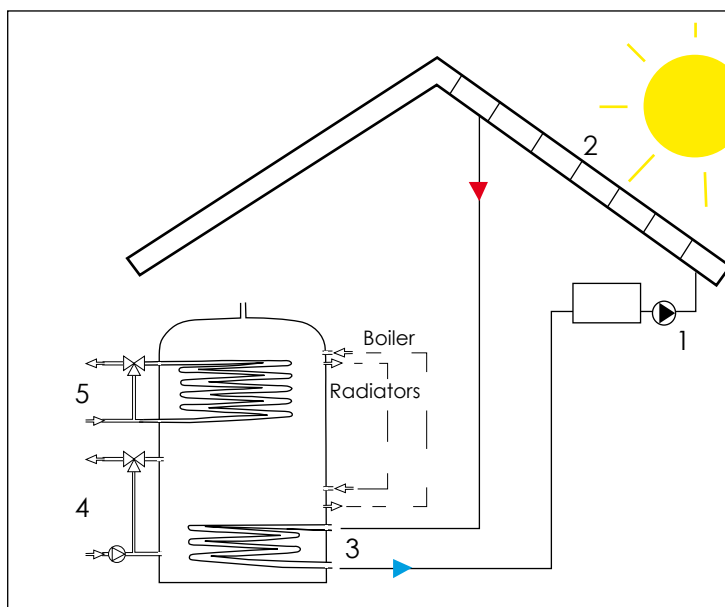
Underfloor heating is recommended for use with solar space heating, as it works more efficiently than radiators, and should be seriously considered for new build homes/buildings.

Typical combined water and underfloor heating systems from us have 20m²-60m² of Solex roofing, which is ideally at least 50% of the heated floor area. The output of a 30m² system averages around 9,000kWh/year.



Solar space heating systems require a large capacity heat store to even out day-night and day-to-day solar fluctuations and heating demand. This usually takes the form of a large insulated water tank – a thermal store – which is typically sized between 1000 and 3000 litres for a domestic system.

As well as storing heat from the Solex roof, the thermal store will accept multiple heat inputs from boilers, solid fuel stoves, heat pumps etc., enabling the easy integration of different components of the heating system. Heat outputs for underfloor heating, potable hot water and radiators are all provided from different points on the store.



How does it work?

1. Solar pump - circulates fluid from a holding tank through the solar roof
2. Solar roof - heats the circulating fluid
3. Heat exchanger - heats the thermal store
4. Underfloor heating - taken directly from the cooler lower part of the store
5. Hot water - taken indirectly from the hot upper part of the store