

Solar thermal systems - the case for copper

UK homeowners are increasingly thinking of alternative, renewable energy sources to provide them with hot water and space heating. Solar thermal systems have become a very popular option in recent years and professional plumbers have not been slow in equipping themselves with the knowledge to install these systems.



Flat-plate collector.

Image provided by VELUX/ESTIF

"Solar thermal installations are a great business opportunity for the professional plumber", says Jack Wallace, Chairman of the UK Copper Board. "Copper is already thought of as the first choice plumbing and heating system material, now it proves itself number one for green energy systems".

The case for copper

Copper tube for solar thermal systems uses the usual 'plumbing' tube to EN 1057, as it is well capable of handling water and other fluids, such as those found in solar thermal systems, at high temperatures.

Solar thermal systems can reach high temperatures, over 200°C at times, and so the jointing technique must be very carefully considered. At such high temperatures it is inadvisable to solder but brazing is an acceptable alternative.

If installations are being made in roof spaces where it is undesirable to have naked flames, then there are copper press fittings available, specifically designed for solar pipework.



Jointing using a flame-free copper press fitting

Versatility

Copper is the ideal material for domestic solar thermal installations. Copper is also suitable for hot and cold water services, central heating pipework, in fact all your domestic pipework needs. Copper's versatility means that you need only carry one plumbing material on your van, for use in all your domestic pipework jobs.

Compatibility

Copper tube and fittings are manufactured to standard sizes, so you know that tubes and fittings from different manufacturers are completely compatible and will fit together to complete quality copper installations. Should you find yourself short of materials, then copper tube and fittings can be readily sourced from plumbers merchants.

Recyclability

One final reason why copper is ideal for use in the 'green' solar thermal installation - its recyclability. Copper is 100% recyclable. At the end of the working life of the installation, the copper tube and fittings can be sent for recycling; no copper need go to landfill. Recycling copper saves on resources and it takes less energy to manufacture copper products from recycled material than from the mined ore.

A substantial amount of the copper that is used to manufacture tubes is recycled metal.



The choice is copper

House builders and homeowners alike are being encouraged to think about renewable energy sources and solar thermal systems are proving to be an attractive option. Copper is the first choice for domestic plumbing and heating systems; now its properties can be put to great use in solar thermal installations. The recyclability of copper, and its well established recycling industry, mean that it is an ideal pipework material for those seeking to help reduce mankind's impact on the planet.



For more information go to www.ukcopperboard.co.uk