

# Copper – for today, tomorrow and forever

**Copper is 100% recyclable, with no loss in properties!**

“Copper plumbing systems are an important component of the modern sustainable building”, says Jack Wallace, Chairman of the UK Copper Board. “Man has known for centuries that copper is fully recyclable and offers many economic, social and health benefits. The sustainability of copper ensures that we will see copper water services installed in buildings for many years to come”.

Sustainability of materials is something that impacts all parts of the construction sector and is an increasingly important concern in modern buildings. The copper industry has worked hard to produce information on the environmental performance of their products and the results are very positive.

Sustainability has been defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs. From this we understand that each material must be assessed according to environmental protection, economic growth and social considerations. Here is a summary of the important contribution made by copper to the modern sustainable building:

## Resources and recycling

The recycling of copper is well established and plumbers have always sold into the recycling chain off-cuts, decommissioned pipework and cylinders that have reached the end of their lives.



- Copper is 100% recyclable, with no loss in properties. Recycled copper can be used for exactly the same applications as newly mined copper.
- Recycling helps to meet the growing demand for copper, helping to preserve natural resources.
- In Europe 42% of the copper demand is satisfied by recycled material.
- Copper tube manufacturers use on average more than 50% recycled materials in their tubes.
- Recycling uses 15% of the energy that would be used to mine and produce the same copper, helping to conserve fossil fuels and reducing CO<sub>2</sub> emissions.
- Copper has been recycled for 10,000 years and is today the most recycled plumbing material.



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## Social and economic

Copper undoubtedly adds to our social and economic wellbeing through the provision of safe drinking water and water for washing and central heating, as well as in the generation, distribution and use of electricity. Our everyday lives depend on copper.

- Copper is the UK's preferred plumbing material.
- All household electrical appliances, electronic and telecommunication devices contain significant quantities of copper.
- Copper plays a vital role in renewable energy generation.
- In electric motors and other components, more copper can improve efficiency by reducing wasteful heat loss. This means less greenhouse-gas emissions.

## Health

Copper is well known for its natural antibacterial properties as well as being essential for human health.

- For centuries copper pipes and vessels have been used to convey clean drinking water.
- Copper has been shown to limit the growth of water-borne pathogens such as Legionella pneumophila.
- Copper and copper alloys help to control the incidence of infection from E.coli, Listeria, Salmonella and the hospital-acquired infection, MRSA.
- We all need a daily intake of copper in our diets to maintain our good health. Chocolate and nuts are two good sources of copper.
- Copper is a micro-nutrient, vital for all forms of plant and animal life, ensuring soil fertility and productivity.

Copper is important for delivering fresh, clean, wholesome drinking water, for generating and supplying electricity and for our health. Recyclability increases copper's value to society in that it helps to conserve natural resources. Use of recycled copper leads to reduced production of greenhouse gases. As new copper products can be made from old copper, no copper needs to go to waste.

With so many positive attributes, copper will play a key role in the development of sustainable buildings and one of its main applications will continue to be in plumbing and heating systems.

For more information go to [www.ukcopperboard.co.uk](http://www.ukcopperboard.co.uk)

