

Environmental and social responsibility for the 21st Century

Lead recycling

As good as new

Lead enjoys one of the highest recycling rates of all materials in common use today. This is a result of its fundamental properties, good design and the ways in which it is used, which make lead based products easily identifiable and economic to collect and recycle. As a result over half of the lead produced and used each year throughout the world has been used before in other products. What is more, because lead is a naturally occurring element, the quality of the recycled lead is identical to that of primary metal from mining.

Over the years, lead has been used for many different applications, but the pattern of uses has evolved continuously. A notable feature has been the elimination of such dispersive uses as paints and gasoline additives, and the growth in recyclable uses. Today about 80% of lead is used in lead acid batteries, all of which are readily recyclable. Indeed an efficient and extensive infrastructure exists in most countries for the collection and recycling of used lead acid batteries. A further 6% of lead is used in the form of lead sheet by the building industry. Together with a number of other smaller volume metallic applications such as radiation shielding, cable sheathing and various specialised applications, such as earthquake dampers, this means that about 90% of all lead is used in readily recyclable products – and almost all of it is recycled.

The recycling of lead brings many advantages both to industry and to society at large, in areas such as energy consumption, carbon emissions, resource conservation and costs. As far as energy consumption is concerned, the recycling of used lead products requires only about one-third of the energy needed to produce lead from its ores. This results in major energy savings and reduces carbon emissions. Apart from these savings in energy resources, the reduced demand for virgin metal also results in less demand for lead ores which can thus be conserved for future generations. The recovery of used lead products and the recycling industry have also created significant employment opportunities. These factors, coupled with lower costs, mean that recycling is a very attractive option for users of lead containing products, and a valuable contribution to sustainability.

