

# Metal packaging: the recycling rate continues to grow

The majority of metal packaging is recycled today. Metal is easy to remelt in order to generate new materials. It can easily be used anew in a wide range of applications — virtually indefinitely. Thanks to the good recycling rates achieved in Belgium and in Europe, less primary metal is used and more recycled material is called upon instead. The steel packaging recycling rate in the 27 EU countries continues to progress: it stood at 71% in 2008.

prevent pack

## From the PMD bag to remelting

**Collection.** Metal packaging is primarily collected door-to-door through the PMD bags (Plastic bottles and flasks, Metal packaging, and Drinks/beverage cartons). Part of this packaging is also collected at the container parks. The collected metal packaging includes used tin cans, empty beverage cans, trays, and other containers such as aerosols for cosmetics and food.

**Sorting.** The contents of the PMD bags are sorted at sorting centres. One of the benefits of steel is that it can be separated magnetically. As for aluminium, it is generally sorted by means of eddy current machines.

**Recycling.** Once sorted, the steel packaging is compacted into packs and aluminium packaging into bales. Scrap metal dealers then carry out an additional qualitative sorting of these packs and bales. Finally, they are resold to aluminium foundries and

steel mills in order to charge ovens and for integration into the manufacturing process of new metal products.



## Recycled into numerous applications

Recycled **steel** packaging is used to manufacture new steel that will be used in the building and automotive sectors, in household equipment, or again for packaging.

New **aluminium** obtained from recycled material enables the production of packaging, as well as components for buildings and transport.

## More and more recycled metal

Steel and aluminium can be recycled indefinitely — regardless of the number of recycling cycles — without losing their physical and chemical qualities. The steel packaging recycling rate continues to progress in the 27 EU countries, and stood at 71% in 2008. Today, the annual **steel** production in Europe amounts to 200 million tons, of which about half is manufactured from scrap. Indeed, the electric arc furnace

process enables the manufacturing of steel entirely from scrap.

As for **aluminium**, a strong evolution can be observed in Europe regarding its recycling rate. Recycled aluminium accounts for 50% of the entire aluminium packaging fraction. In some countries, it even exceeds 90% for beverage cans.

## Towards 100% recycling

Steel already incorporates a manufacturing process that uses only scrap. The question remains, however, whether it will be possible in the future to manufacture all of the steel and aluminium we need from scrap. In practice, a mix of primary and secondary material is often used because a large quantity of metal is collected in long-term applications such as buildings

and vehicles. One must thus wait several years before recovering the metal. On the other hand, since packaging has a shorter life cycle, it can be available much more quickly to produce new metal. In the case of beverage cans, for instance, recycling is carried out within 60 days when the collection and sorting systems are well organized.

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### Energy and raw material savings

**The recycling of metal packaging enables the saving of raw materials such as iron ore and bauxite. However, it also achieves significant energy savings.** 'By using steel scrap or aluminium waste, it is possible to obtain the same metal quality with less energy than is required to produce primary metal,' pinpoints Luc Braet of Stalupack. 'In addition, the recycling of metals considerably reduces CO<sub>2</sub> and nitrogen (NO<sub>x</sub>) emissions. As for sulphur (SO<sub>2</sub>) and perfluorinated compounds (PFC) emissions, they are reduced by more than 90%. The high sales prices of the sorted metals highlight the quality of the treatment that they undergo.'

### Multiple sector initiatives

'We have launched a campaign to inform the public of the actual results of recycling,' concludes Braet. 'This campaign was undertaken with Fost Plus and illustrates, among other things, that it is possible to produce an entire bicycle with 600 recycled beverage cans. We hope to further increase the quantity of collected metal packaging.'



### Stalupack

Stalupack is an independent organization that Fost Plus calls upon as an expertise centre for the collection and recycling of steel and aluminium packaging.

### Pack4recycling.be

The Pack4recycling.be Website provides additional information on the recyclability of the various types of packaging. You can test whether your packaging will be recycled or not by using a decision tree.

[www.pack4recycling.be](http://www.pack4recycling.be)

### For additional information

[www.fostplus.be](http://www.fostplus.be) • [www.apeal.org](http://www.apeal.org) • [www.steelforpackaging.org](http://www.steelforpackaging.org) • [www.eaa.net](http://www.eaa.net)