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Factsheet:
Recycling Content versus Recycling Rate

When it comes to metal packaging, the recycling rate is a better measure of sustainability than the percentage of recycled content in the product.

Metal Recycles Forever

Metal is a permanent material that can be recycled an infinite number of times.

Metal has no "pack-to-pack" constraint and can be recycled in a variety of different product loops – from cans to cars to bridges – without ever losing its strength or other material qualities.

Metal recycles to products with different life cycles

Since metal applications have different lifecycles – ranging from fast-moving consumer goods to near-permanent infrastructure like bridges etc. – there is not enough scrap metal to meet aluminum and steel demand.

Fully recyclable used in efficient loop

Metal is fully recyclable and metal recycling is integrated into all packaging production processes because it is both economical and easy.

Since scrap metal supply cannot meet demand, a high percentage of recycled content in one product would only lead to there being less recycled content in others.

Metal Packaging has High Recycling Rates

Since all collected material is recycled and used for new metal products, it is not important which individual products the recycled metal goes into. What really matters in terms of environmental performance is the recycling rate – which is high for both steel and aluminium packaging:

Source:
European average – Eurostat, Apeal (2019)

Source:
Estimated overall European recycling rate by EAA (review of 2017)

Want to know more?
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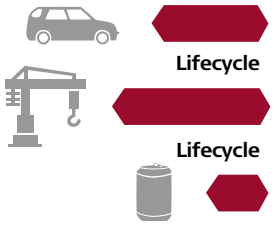
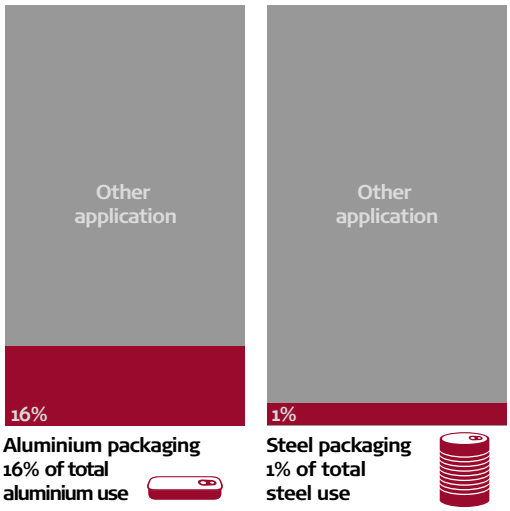
Measuring the Environmental Performance of Metal

The metal consumption market is large and packaging products represent only a small portion of the total metal pool.

Metal is working in an efficient and economical recycling loop. All sorted metal is recycled into new metal.

Source: Worldsteel (2019) and Aluminium leader (2014)





Aluminium packaging 16% of total aluminium use

Steel packaging 1% of total steel use

	Recycling Rate	Recycled Content Industry	Recycled Content Product
Metal	**Rigid Packaging** Steel: 85,5% Aluminium: 65% Permanent material that can be used in a vast number of applications (open loop).	**Recycled Content, total** Steel: 58% Aluminium: 40-50% Total numbers are affected by the fact that metal is also used in long-term infrastructure.	Not a relevant measurement since figures depend on total material supply (vast amounts of recycled metal are used in long-term infrastructure) and total metal product demand.
Plastic and Paper	Degradable material that is only used in one/few application areas (without "pack to pack" constraint).		A relevant measurement for fast-moving consumer goods where there is no general market for recyclables.

Conclusion: Metal's environmental performance should not be judged by the Recycled Content metric
Since large amounts of recycled metal may be tied up in objects with very long lifecycles (bridges, trains, cars etc.), the sustainability of metal as a whole – and metal packaging in particular – should be measured on its recycling rates. Our goal should be to increase metal recycling rates, which would affect material supply and allow us to benefit from the infinite recyclability of metal.

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Recycled Content vs. "End-of-Life" Recycling Rate

European Aluminium does not support the communication of recycled content figures at product level because of their low environmental relevance and because of the high dependency of these numbers on system boundaries. Being however asked what the recycled content of materials used to produce aluminium products is, European Aluminium has decided to give specific guidelines to its members regarding recycled content calculation. These guidelines are to make sure that recycled content is associated with a clear state of the aluminium in the value chain and that a strict methodology is applied for its calculation (i.e. including all scrap generated after the definition point).

This should enable all stakeholders not to be misled by any communicated number when specified that it has been calculated following European Aluminium guidelines and avoid any wrong interpretation of the number.

European Aluminium cannot communicate recycled content figures at product level because of the high dependency of these numbers on system boundaries and suppliers. However, we estimate that on the basis of metal supply statistics, estimates that the fraction of the metal supply coming from recycling in Europe (also named recycling input rate) is about 40% when including imports from outside Europe and about 50% when focusing on European production.

Such value range of 40% to 50% can be used as proxy for recycled content value when such information is asked in the context of 'collective' products Life Cycle Assessments.

European Aluminium, 26/5/2016

Every can collected count – because it can be used again and again forever

When working with improving environmental performance we shall focus on improving recycling of metal packaging because every can collected counts.

For this purpose, we recommend to use the recycles forever mark and focus on guidance and education of the recyclability of the can.

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The recycled content of steel for packaging

Steel is fully recyclable. In substitution of raw materials, steel scrap forms part of a new steel production process. Consequently, every steel plant is in fact a recycling plant, which contributes to increasing the recycling rate of steel packaging.

The steel packaging supply chain does recognise that both recycling rate and recycled content are used in the packaging industry for defining the environmental performance of packaging material in general. For this reason, we are often asked about the recycled content of steel for packaging that is supplied by European tinplate producers.

Given this fact the industry has always focused on closing the loop for steel packaging to ensure the material is used over and over again in new cycles. We therefore have developed a coherent approach that gives insight into the amount of recycled scrap that is used to produce the total volume of steel for packaging in Europe.

Goal and scope

This formula is used by our industry to calculate comparable recycled content numbers for steel for packaging that can be used by the stakeholders to benchmark steel for packaging in Europe against other packaging materials.

Formula

Recycled content (RC) in EU for steel for packaging = Total steel for packaging scrap consumption / Total steel for packaging production

$$RC\% = \frac{2{,}496{,}351\ T}{4.300.348\ T} = 58{,}0\%^{1}$$

[1] APEAL (data 2017, certified by CE Delft and validated by the European Commission in 2020)

APEAL, 5/2020

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