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Recycled content: the case for metal packaging

External position

IN THE CASE OF RIGID METAL PACKAGING, ONLY RECYCLING WILL PAY OFF.

Metals, such as aluminium and steel, are permanent materials. They can be recycled again and again with no loss of quality, as there is no structural degradation during recycling^{1,2,3}. Recycling metal packaging brings an environmental benefit no matter for which metal application the recycled material is subsequently used – the material loop is working. Whatever the next application or product (automotive, construction, packaging etc.), the environmental benefit occurs at the time of re-melting the collected metal packaging (when scrap substitutes primary material) and not at the point of re-shaping the secondary material.

Thus, the most important criterion is metal conservation along its full life cycle and End of Life recycling. Every effort should be made to collect and sort used metal packaging to make it available again.

In diversified metal packaging markets characterised by products with short life spans, the average recycling rate for rigid metal packaging in Europe is 75% (steel for packaging – 2016: 79.5%⁴; aluminium beverage cans – 2015: 74%⁵). Through recycling the metal becomes available for new applications, thereby preventing the production of an equivalent quantity of virgin material with the associated energy use and CO₂ emissions.

WHY RECYCLED CONTENT IS NOT APPROPRIATE FOR METAL PACKAGING

A recycled content approach is typically adopted for materials, which require encouragement to create a secondary material market because they are faced with an abundance of waste (recyclates) with little market demand.

¹ Flora Conte, Fredy Dinkel, Thomas Kägi, Thomas Heim, 2014. *Permanent Materials*, Carbotech.

² Sabrina Neugebauer, Matthias Finkbeiner, 2012. *Ökobilanz nach ISO 14040/44 für das Multirecycling von Stahl*, TU Berlin.

³ Günter Dehoust, Cornelia Merz, 2011. *Methodischer Ansatz zur Bilanzierung des Aluminium-Recyclings in Ökobilanzen*, Öko-Institut e.V.

⁴ See www.apeal.org

⁵ See www.european-aluminium.eu



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Aluminium and steel are facing the opposite situation. Both have experienced growth over the past decades in their main end-use markets, including packaging. In both cases, there is a strong multi-market demand for scrap, which has always been higher than the availability of scrap at a specific moment in time. Given this market situation, a recycled content approach would divert the scrap flow from one stream to another, adding potential system costs and bringing no added environmental benefit⁶.

A recycled content approach for metal packaging also has some further practical implications. Due to the homogeneous nature of metals and the fact that primary and secondary metals are structurally identical, no technique exists to measure the level of recycled content in a finished metal product⁷.

CONCLUSION

The objective of the metal packaging industry is to support the 'continuous life cycle' of aluminium and steel by boosting End of Life recycling in a closed material loop. This creates genuine environmental benefits by avoiding the production of an equivalent amount of virgin material. Restricting the flexibility to reuse material into a single specific application will interfere and disturb the metal recycling market without adding any environmental benefits.

⁶ This is acknowledged by the CEN standards CR report 13504 attached to the Packaging and Packaging Waste Directive (PPWD). DS/CEN/CR 13504. Packaging – Material recovery – Criteria for a minimum content of recycled material. 2000.

⁷ See reference 6.