

PRESS RELEASE

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LIFE CYCLE ASSESSMENT ON TINPLATE REVEALS 9% LESS CARBON EMISSIONS OVER 2 YEARS

The steel for packaging industry in Europe has lowered its global warming potential (mainly CO₂ emissions) by 9% over two years. This is one of the results of a comprehensive study on the environmental footprint of tinplate production¹ commissioned by the Association of European Producers of Steel for Packaging (APEAL). More than half of the emissions from production can be saved if tinplate is recovered and reused, which is already standard practice in the EU, where the recycling rate of tinplate reaches an average of 71% (2010).

In order to make steel packaging more environmentally friendly and continue improvement, it is necessary to know the environmental impact over the entire life cycle. "Product stewardship doesn't end at the factory gate", says Philip Buisseret, Managing Director of APEAL. Therefore, APEAL has carried out a comprehensive life cycle assessment (LCA) for tinplate production in Europe. The study is highly representative. "95% of European tinplate production has been taken into account since all major tinplate manufacturers have participated", adds Buisseret.

The results show that the steel for packaging industry continues its trend towards more sustainable production. In addition to lowering CO_2 emissions by 9%, the environmental footprint of tinplate production has been reduced in other impact categories too, such as acidification (-6%), eutrophication (-11%) and primary energy demand (-3%).

Today, producing 1 kg of tinplate (equal to 46 food cans of 425ml) emits 2.33 kg of CO_2 . This is the carbon emissions equivalent to a family car driving a distance of 16 km. "Production is only one phase in the life cycle of a tinplate product. The steel industry focuses on the entire loop: efficient tinplate production and 'end of product life cycle' to improve the sustainability credentials of steel for packaging even further. The higher the recycled rate of steel packaging, the greater the savings on CO_2 emissions, water, energy and raw materials", says Buisseret.

In Europe, where 71% of tinplate is recycled, CO_2 emissions are currently reduced by 42%. If a theoretical recycling rate of 100% is used, CO_2 emissions decrease by more than 60%. This is more than just theory. In Germany, 93.8% of tinplate is currently recycled, and almost all tinplate produced in Belgium is recovered with a recycling rate of 98%. "No other packaging material achieves higher rates of recycling in Europe", confirms Buisseret.



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A detailed summary paper can be found at www.apeal.org. The full report can be obtained from APEAL (e.frauman@apeal.be) from 24th April.

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¹About the study

The study evaluates the European production of tinplate coil in a so called cradle to gate analysis, meaning that all production steps from the extraction of raw materials to manufacturing of the coil were taken into account. In addition, the potential effect of recycling was calculated assuming the European average recycling rate. The four major tinplate manufacturers ArcelorMittal, Tata Steel, ThyssenKrupp Rasselstein and U. S. Steel Košice, all participated in the study, delivering data from eight operating sites. 95% of European tinplate production was covered by the study. The data were based on 2008 production values. The study updated existing LCA data from 2006 produced by worldsteel as part of an LCA study of steel products. The study was conducted according to the international standards for life cycle assessment ISO 14040/44 and the Worldsteel LCA methodology, in order to be able to compare the results with existing LCA tinplate data and to be able to apply them in other LCA studies.

About APEAL

APEAL - the Association of European Producers of Steel for Packaging is a federation of four multi-national producers of steel for packaging (ArcelorMittal, Tata Steel Packaging, ThyssenKrupp Rasselstein, U. S. Steel Košice). In total these four companies employ over 200,000 workers in Europe. Founded in 1986, APEAL represents today about 95% of the total European production of steel for packaging.



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