

DESCRIPTION

This document specifies the carbon footprint and renewable content of chosen products in Elopak's portfolio, expressed as grammes of CO₂e per printed beverage carton.

PARAMETERS

CARTON

Carton type	Fresh Dairy Pure-Pak®
Board types	Previous vs new Natural brown board
Size	1 liter
Feature	Renewable PE

RESULTS

Carbon footprint in g CO₂e / carton

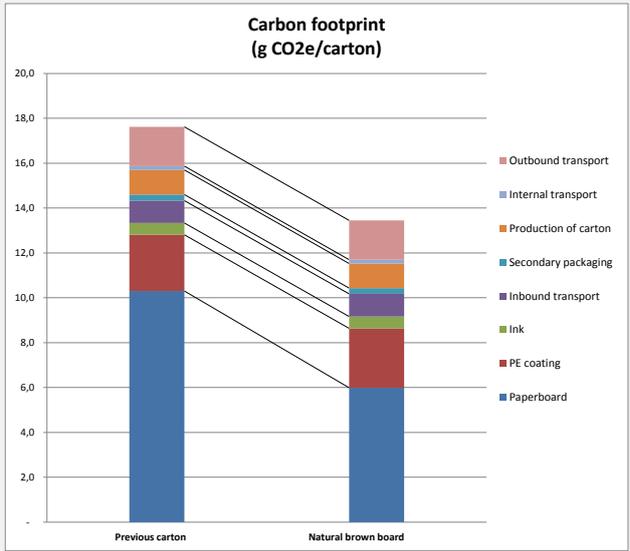
	Previous Aria Eko carton	Natural brown board	
Upstream processes	Paperboard	10,3	6,0
	PE coating	2,5	2,7
	Tie/other	-	-
	Alu	-	-
	EVOH	-	-
	Ink	0,5	0,5
	Inbound transport	1,0	1,0
	Secondary packaging	0,3	0,3
	Closure (incl. transport)	-	-
	Total upstream	14,6	10,4
Core processes	Production of carton	1,1	1,1
	Internal transport	0,2	0,2
	Total core processes	1,3	1,3
Downstream processes	Outbound transport	1,8	1,8

Total cradle-to-gate (g CO₂e / carton)

Previous carton	17,6
Natural brown board	13,5

Other key results

Calculated area	0,085	m ² / carton
CO ₂ e savings per carton - New carton	-24 %	
CO ₂ e footprint per 1000 cartons	18	13 kgCO ₂ e for 1000 cartons



METHODOLOGY AND DATA SOURCES

The footprint is given as a "cradle-to-gate" calculation, considering all emissions connected to the production of all raw materials, Elopak's own operations including final conversion, and all transportation up to the delivery at Elopak's customers' gate. The scope covers Elopak's European operations.

The methodology used is in line with the ISO standards for Life Cycle Assessments (ISO 14040 and 14044). The Product Category Rules for beverage cartons are followed where relevant to the carbon footprint calculation methodology (PCR Beverage Cartons 2011:04 Version 1.0, developed in accordance with ISO 14025:2006). Further details on the methodology (process map, system boundary, inclusions, cut-offs, allocation rules) is available upon request.

Primary data is used for Elopak's own operations and the production of some raw materials. Internal production data is taken from Elopak's reporting tool "Footprinter" (2015 data) and including Elopak's purchase of renewable energy certificates (Guarantees of Origin) for European plants only. Internal transport data is calculated based on reporting from Elopak's units (2015 data). Suppliers' primary data is used for key raw materials.

Secondary data is sourced from LCA databases such as Ecoinvent and studies for some of the raw materials such as PlasticsEurope and the European Aluminium Association, as specified in the beverage carton PCR.

The renewable content figure is the percentage, by weight, of renewable materials within the carton. The definition of "renewable" is taken from the ISO 14021 standard (environmental declarations and labeling): "material composed of biomass from a living source that can be continuously replenished".

DISCLAIMER



The intended purpose is to provide Elopak's customers with a fair representation of the greenhouse gas emissions associated with Elopak's products. If used for advertising or labelling, a reference to this document shall be made. Elopak developed this tool in cooperation with Anthesis, who advised on calculations and secondary sources of data. Anthesis is confident that, at the time of review, the tool provided a fair representation of the carbon footprint of Elopak's cartons in line with the methodology described above. This applies to version 5, November 2016.