# **Carbon footprint report** . .

:kage: :kaging material c ographic scope: nted:	quality: /jl BIO C EU indu	Tetra Brik® Aseptic 1000 Base No Opening, No Opening /jl BIO CLC Dup EU industry average v9 2024-02-07			
	Cradle-to-grav	ve carbon footprint (g	g CO2e/package)		
	Standard	packaging material	Plant-based packaging material		
Life cycle step	Standard opening	Plant-based opening	<u>Standard</u> opening	Plant-based opening	
Total Cradle-to-gra	ave	41	36		
Carbon footprin	it % reduction for	packages with plant- grave results	based polymers bas	ed on cradle-to-	
	Standard pa	ckaging material	Plant-based pac	kaging material	
Life cycle step	Standard opening	Plant-based opening	<u>Standard</u> opening	Plant-based opening	
Reduction			-12 %		
Package weight, incl opening (g)	27		27		
	-	enic carbon (g CO2/p			
		ckaging material		kaging material	
Life cycle step	Standard opening	Plant-based opening	Standard opening	Plant-based opening	
Biogenic carbon in material	28		36		
	Standard pa	Package ID	Plant-based pa	ackaging material	
tife evel at the	Standard	Plant-based	Standard	Plant-based	
Life cycle step	opening	opening	opening	opening	
	02008233		03000995		
Package ID					





The carbon footprints of these packages and the reductions have CARBON been certified by the Carbon Trust.

# Use of the results

This carbon footprint report provides:

- Certified package cradle-to-grave carbon footprint(s) that meet the requirements of the PAS 2060 standard on carbon neutrality.
- Certified carbon footprint(s) reduction for packages with plant-based polymers based on cradle-tograve results that may be used to support public communication.

'Plant-based' is used in the tables to describe versions of the package containing plant-based polymers in the opening and/or in the packaging material.

## Certification

The carbon footprint of the included packages and the reduction have been certified by the Carbon Trust to PAS 2050:2011, ISO 14044:2006 and ISO 14067:2018. More information is available on www.carbontrust.com/tetrapak.

Use of the Carbon Trust name and label need to be in line with relevant licence agreements and guidelines.

# Scope of the carbon footprint

Cradle-to-grave, including: raw material production, transport of raw materials, packaging material converting, closure converting, film extrusion and blowing, strip production, transport of packaging materials to filler, forming and filling of the package, transport of packaging materials to distribution center and end-of-life.

The terminology of ISO 14067:2018 has been used, meaning that all relevant GHG emissions and removals are covered in the term 'carbon footprint'. The carbon footprint results are expressed in 'CO<sub>2</sub> equivalents' (CO2e).

# Geographic scope

### Calculations based on 'European industry average' data

Raw material: For production of liquid packaging board average data as presented by The Alliance for Beverage Cartons and the Environment is used and for aluminium foil data as presented by European Aluminium Association is used. For production of plastics data as presented by Plastics Europe is used and for production of plant-based plastics data is from the Braskem 2017 'I'm green™ PE Life Cycle Assessment'.

Converting: For the converting operations global average data from Tetra Pak's GHG reporting is used representing the performance in the last full reporting year. The impact of the transport of raw materials to the converting factory is included in the converting result and based on European average data.

Forming and filling: For the transport of packaging materials to the filler, average modes and distances as presented by ACE are applied. Forming and filling represents global average impact of the most recent version of the filling machine, relevant for the type and size of the package. Data is sourced from Tetra Pak's GHG reporting. Transport of packaging materials to distribution center is modeled based on average distances and transport emission factors from Tetra Pak's GHG reporting.

End-of-life: The end-of-life scenario represents the European average situation for cartons, based on ACE statistics. The 'cut-off' method has been used when modelling end-of-life: no environmental burdens nor credits have been included in the results for cartons going to recycling or incineration with energy recovery. End-of-life results include impacts from incineration without energy recovery and landfill.

Rounded numbers are shown in the carbon footprint report. Unrounded numbers have been used when calculating the results.

## Biogenic carbon in the packaging material

Plants capture and store carbon from the atmosphere. When wood fibre is processed into paperboard, or sugarcane into plant-based polymers, the finished packaging material contains biogenic carbon captured from the atmosphere. The estimated biogenic carbon content of the packaging material as it leaves the Tetra Pak factory gate – the biogenic carbon in the material - is presented separately and not included in the carbon footprint results, as required by ISO 14067:2018.

#### Updates and revisions

The results are based on version 9 of the Tetra Pak internal 'Carton CO2 Calculator' model, valid from 2023. The Carton CO2 Calculator model has been certified by the Carbon Trust. The model is periodically updated to ensure that the latest available emission factors and material specifications are applied. The results of the model may not be directly comparable with those generated in earlier versions.

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