

Carbon footprint report

Purpose of this carbon footprint report

This carbon footprint report provides:

- A certified carbon footprint reduction claim for packages with bio-based polymers.
- A certified package carbon footprint meeting the requirements of the PAS 2060 standard on carbon neutrality.
- A cradle-to-grave carbon footprint that may be used in public communication.

Use of the results

The results can be used in public communication. The exact wording of a claim is to be aligned with Tetra Pak.

Certification

The carbon footprint of the included packages and the reduction have been certified by the Carbon Trust.

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 and end-of-life.

Annually updated

The results are based on version 6 of the Tetra Pak internal 'CO2e Product Model', valid from 2019-02-28. The model is updated annually 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.

Calculations

The specific material composition is used for each package as the basis for the calculation.

The calculations are based on industry average data and for European conditions. For production of liquid packaging board average data as presented by The Alliance for Beverage Cartons and the Environment (www.ace.be) is used, for plastics data as presented by Plastics Europe is used (www.plasticseurope.org) and for aluminium foil data as presented by European Aluminium Association is used (www.eaa.net). Data for production of bio-based PE is sourced from the LCA made available by Braskem (www.braskem.com.br).

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. 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. 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.

Biogenic carbon

Uptake of biogenic carbon in the packaging material and its release at end of life is not included in the reported carbon footprint, but reported separately.

Results

Cradle-to-grave carbon footprint (g CO₂e/package) and % carbon footprint reduction for package with bio-based polymers compared to standard package

	Package type	Shape	Size	Opening	Material	Carbon footprint (g CO ₂ e/pkg)	Reduction vs standard
STANDARD	Tetra Brik Aseptic	Edge	1000	LightCap 30	/ml	54	
BIO-BASED	Tetra Brik Aseptic Biobased	Edge	1000	LightCap 30 Biobased Lid and Neck	/ml	44	-19%

Package properties (g/package)

	Package + Top Weight	Cap/ Opening weight	Total weight
STANDARD	29	3	32
BIO-BASED	29	3	32

Biogenic carbon (g CO₂/package)

	Biogenic carbon uptake in the material	Biogenic carbon release	Biogenic carbon stored at End of Life
STANDARD	30	1	28
BIO-BASED	47	1	46

Results sourced from Tetra Pak's internal tool: CO₂e Product Model version 6

Totals may not add up due to rounding

Geographic scope: European industry average

Included: Raw material production, transport of raw materials, converting, transport to filler, forming and filling, end-of-life

Material specification: Specific for each package

The carbon footprint of these packages and the carbon footprint reduction have been certified by the Carbon Trust.

European End of Life scenario:	(%)
Recycling	48
Incineration with energy recovery	28
Incineration without energy recovery	0
Landfill	24