

Arkose Backpack

Life Cycle Analysis (LCA)

See results



urth.co

See how the Arkose Backpack from Urth impacts the planet.

Each Arkose Backpack, on average, creates 13.8kg CO₂ emissions

Planting 1 tree sequesters, on average, 307.5kg CO₂

22x positive impact



How are the CO₂ emissions created?

- 01. Recycled nylon shell
- 02. Recycled polyester lining
- 03. Zipper (brass puller, cord and tape)
- 04. Inner padding (foam)
- 05. Aluminium buckles
- 06. Transport (to warehouse)
- 07. Packaging (Compostable cornstarch & PBAT)



How much impact does planting one tree have?

We plant mangrove trees for CO₂ offsetting, which absorb an average of 12.3kg CO₂/year for 25 years (the average lifespan of a mangrove).



What is the net impact of this product?

During its lifetime, 1 mangrove sequesters more than 22x the CO₂ produced by creating and transporting the backpack.

(307.5kg CO₂ sequestered divided by 13.8kg CO₂ created = 22x positive impact).

Offset by tree planting
307.5kg CO₂

Created per product
13.8kg CO₂



More about the LCA Study

Independent audit

We wanted to get a true indication of the impact Urth is having on the planet. So we engaged an independent sustainability auditor – Thinkstep Sustainability Consultancy – to do a thorough Cradle to Gate lifecycle assessment using world-leading GaBi Software.

What's a cradle to gate assessment and why did we use one?

So we could get the most accurate data, Thinkstep recommended a cradle to gate assessment, which tracks impact from resource extraction to local distribution warehouse.

That means courier to consumer, packaging disposal, and end-of-life processes are excluded because there are too many unknowns and assumptions for a reliable assessment. We can be confident in the data from a cradle to gate assessment because the variables are known.

Methodology

The assessment took into account the extraction of raw materials, manufacturing, transport to the airport, freight via cargo plane, and transport to warehouse for distribution.

While the LCA conducted covers a range of environmental indicators, this presentation focuses on the carbon footprint over a 100-year period (GWP100 method following IPCC AR5).

The assessment was performed according to the calculation requirements of ISO 14040:2006 and ISO 14044:2006 – the international standards for Life Cycle Assessment (LCA), and ISO 14067:2018 – the international standard for calculating the carbon footprint of products (CFP).



**We're working on growing our
positive impact on the planet.**

If you have any questions or ideas,
please get in touch.