

Top Layer NRT94 carbon footprint

Amorim Cork Composites

July 2020

Disclaimer

EY carbon footprint analysis follows a life-cycle approach based on ISO Standard 14040 and is based on Amorim Cork Composites data and business assumptions. The results presented are not third-party verified.

Agenda

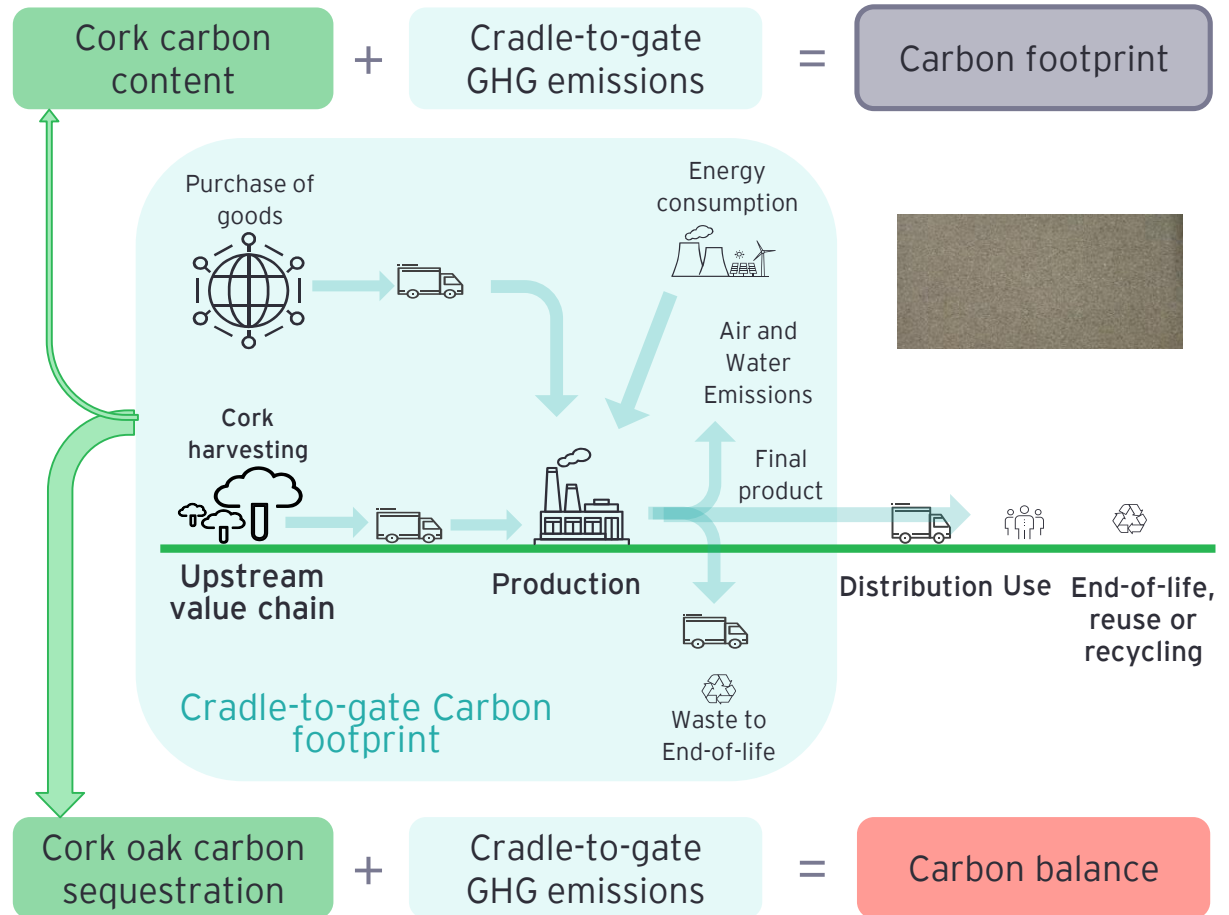
1. About the study

2. Carbon footprint

Cradle-to-gate

3. Carbon balance

Scenario analysis with carbon sequestration at the forest stage



1

About the study

About the study

- ▶ The **main purpose** is to quantify the potential environmental impacts of Top Layer NRT 94 (average weight: 578,5 kg/m³; 0,6 kg/m²; thickness: 1 mm; average composition: 94% cork), produced by Amorim Cork Composites, through a life cycle approach.
- ▶ **Guidelines** : The study was based on ISO 14040/44 series of standards, complemented with the guidelines from the International Reference Life Cycle Data System (ILCD) Handbook - General guide for Life Cycle Assessment - Detailed guidance
- ▶ **Approach**: *cradle-to-gate* (from raw material extraction to the finished product at the factory gate)
- ▶ **Functional unit** : 1 m² of product
- ▶ **Modelling software and database** : SimaPro 9 with ecoinvent 3.5 database
- ▶ **Method** : Midpoint characterization factors recommended by the International Reference Life Cycle Data System (ILCD).
- ▶ **Data collection procedure**

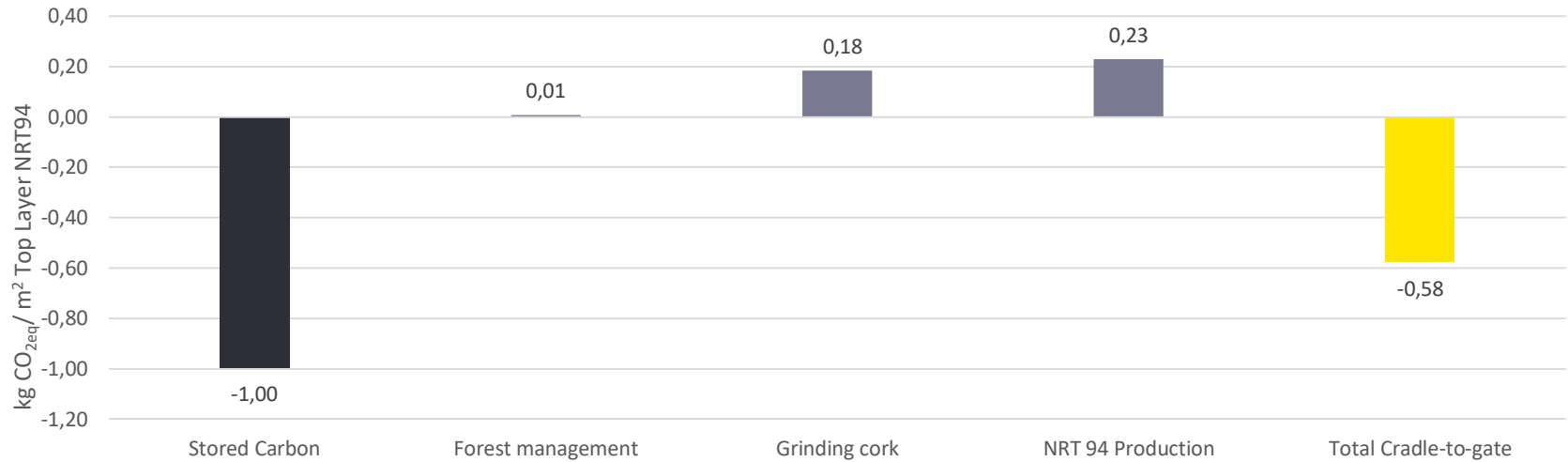


- ▶ Carbon stored in the final product is included
- ▶ Additional scenario analysis of the potential carbon sequestration at the forest stage

2

Carbon footprint

Carbon footprint: results



Top Layer NRT94 carbon footprint:

- ▶ Cradle to gate: **-0,58** kg CO_{2eq} /m²
- ▶ Carbon stored in cork : **-1,00** kg CO₂ /m²
- ▶ GHG emissions: **+ 0,42** kg CO_{2eq} /m²

3

Carbon balance

Carbon balance: results

Scenario analysis with carbon sequestration in the cork oak montado

For Top Layer NRT 94 when considering carbon sequestration in the cork oak* montado:

There is a forest storage up to:

- **39,7** kg CO₂/m²

Therefore, the carbon balance reaches up to

-**39,3** kg CO₂/m²



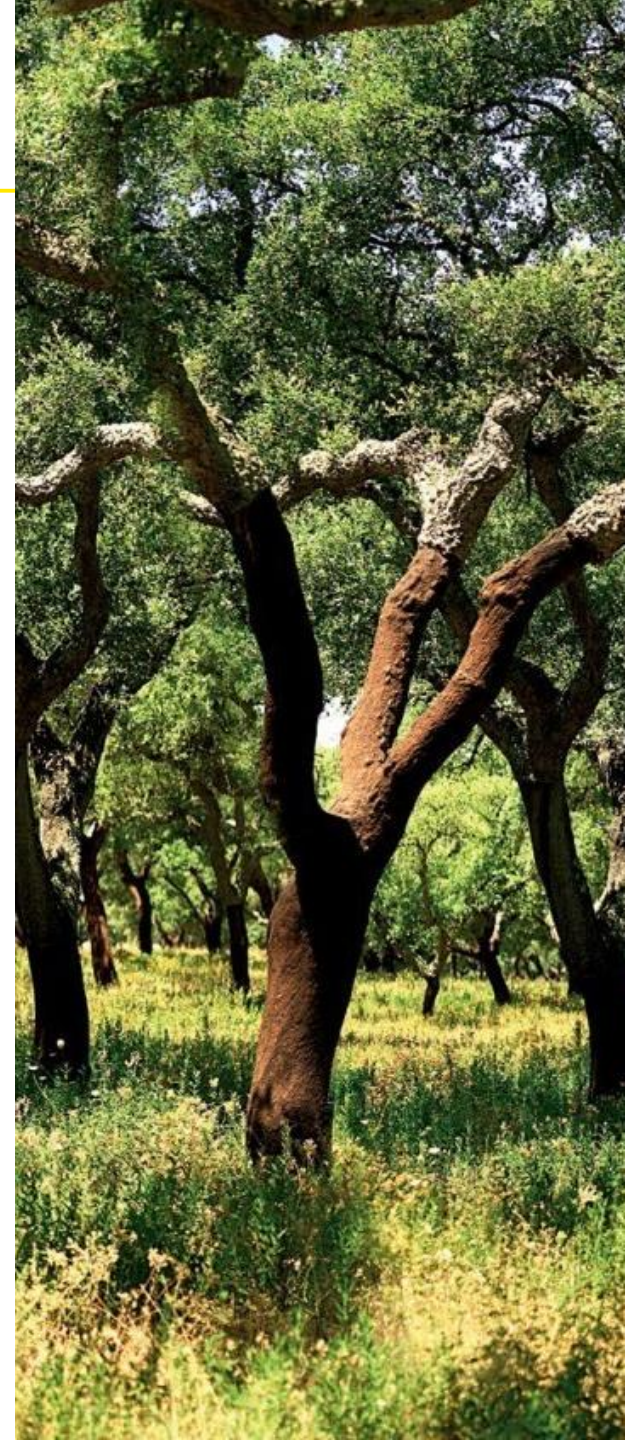
scenario analysis based on well-managed cork oak montado

- **73 t CO₂/t cork**

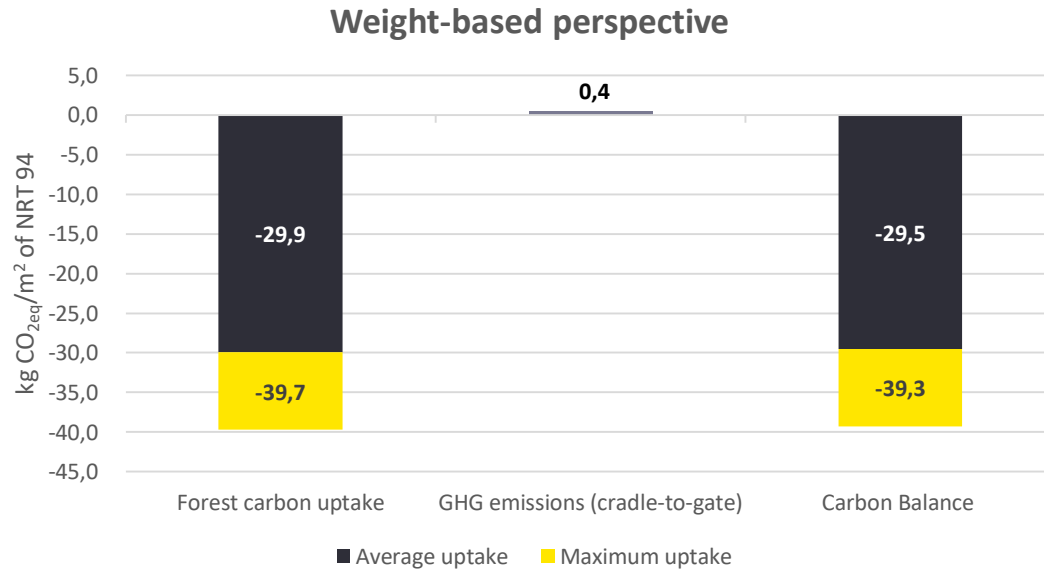
Maximum ecosystem CO₂ uptake registered (14,7 tCO₂/ha) (Costa-e-Silva et al., 2015).

with the average ecosystem CO₂ uptake being - 55 t CO₂/t cork, considering wet and dry years in well managed forests (11 t CO₂/ha).¹

¹ figures used in "The value of cork oak montado ecosystem services, EY 2019"



Carbon balance: results



Carbon balance reaches up to:

-39,3 kg CO_{2eq}/m²

considering maximum ecosystem CO₂ uptake registered in a well managed cork oak montado **-73 t CO₂/t cork**

About EY

EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit [ey.com](https://www.ey.com).

About EY's Climate Change and Sustainability Services

Governments and organizations around the world are increasingly focusing on the environmental, social and economic impacts of climate change and the drive for sustainability.

Your business may face new regulatory requirements and rising stakeholder concerns. There may be opportunities for cost reduction and revenue generation. Embedding a sustainable approach into core business activities could be a complex transformation to create long-term shareholder value.

The industry and countries in which you operate as well as your extended business relationships introduce specific challenges, responsibilities and opportunities.

Our global, multidisciplinary team combines our experience in assurance, tax, transactions and advisory services with climate change and sustainability knowledge and experience in your industry. You'll receive tailored service supported by global methodologies to address issues relating to your specific needs. Wherever you are in the world, EY can provide the right professionals to support you in reaching your sustainability goals.

<https://www.ey.com/sustainability>

© 2020 Ernst & Young, Audit & Asociados - SROC, SA
All Rights Reserved.

