

OUR SUSTAINABILITY CREDENTIALS

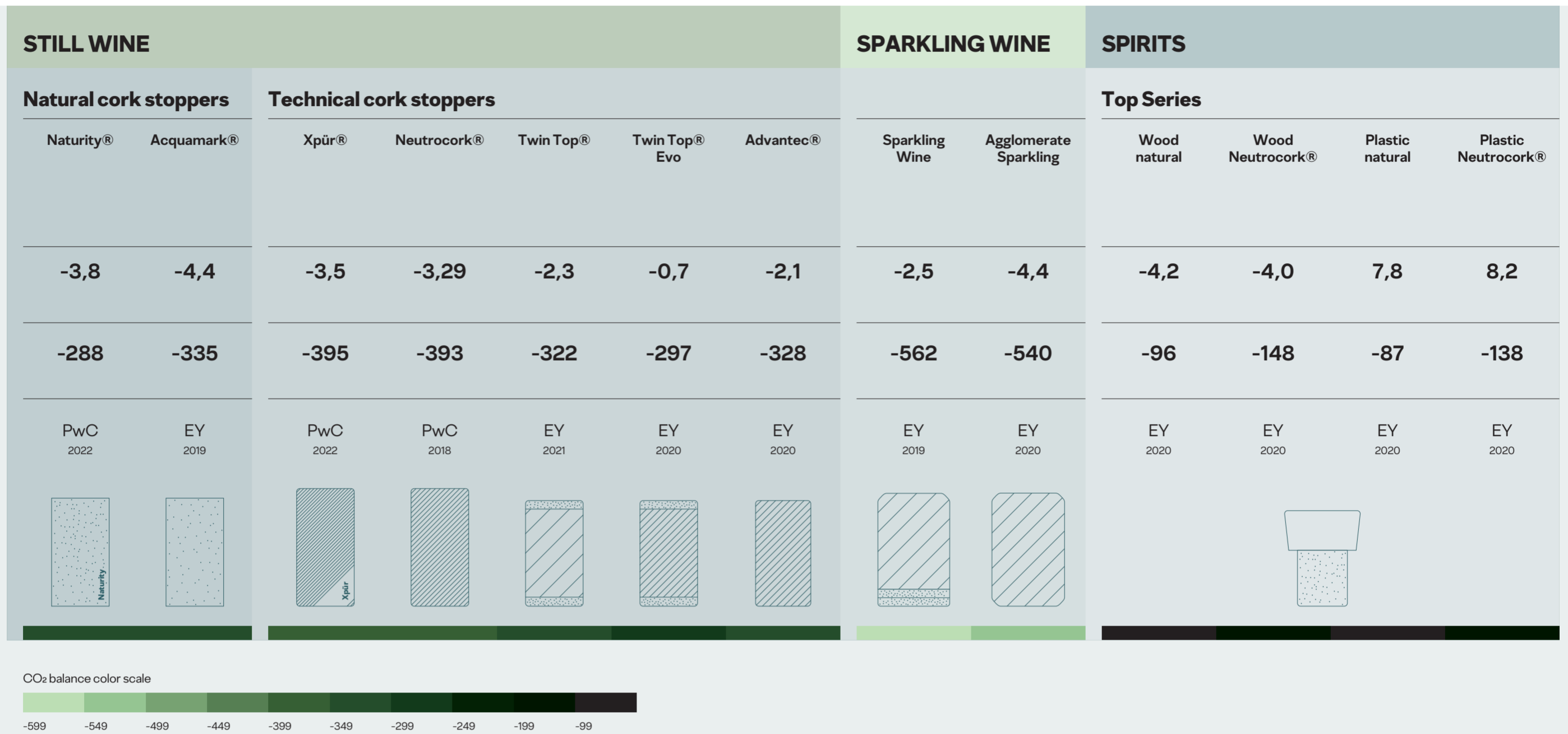
AMORIM CORK

Results in g CO₂ eq /stopper

Carbon footprint
(cradle-to-gate)

Carbon balance
(cradle-to-gate)

Study



Carbon Footprint ≠ Carbon Balance

Carbon Footprint

A carbon footprint is defined as the total emissions caused by an individual, event, organization or product, expressed in tons of CO₂ or CO₂ equivalent per year.

It includes direct emissions, such as those resulting from the combustion of fossil fuels in manufacturing, heating and transportation, as well as the emissions required to produce the electricity associated with the goods and services consumed. In addition, the concept of carbon footprint also often includes emissions of other greenhouse gases, such as methane, nitrous oxide or chlorofluorocarbons (CFCs).

There are several different tools for calculating carbon footprints for individuals, companies and other organizations.

The methodologies commonly used to calculate an organization's carbon footprint are internationally recognized and include the Greenhouse Gas Protocol, from the World Resources Institute and the World Business Council for Sustainable Development, and ISO 14064, which deals specifically with greenhouse gas emissions and is consistent with the ISO 14040 and 14044 standards for life cycle assessment.

Carbon Balance

The carbon balance is the result of a scenario analysis, incorporated into the carbon footprint study, which simulates the inclusion of carbon sequestration associated with the entire cork oak forest ecosystem and cannot, without internationally recognized methodology, be considered for an offset.

The link between carbon sequestration in the cork oak forest and the product's carbon footprint is simulated through the analysis of carbon sequestration scenarios that can be associated with cork products. Cork production is undoubtedly the main economic activity of an exploited cork oak forest. In this way, it can be argued that cork processing companies are a driving force in creating economic interest for cork oak forest owners to continue farming. Reflecting the spirit of the Product Environmental Footprint Category Rule (PEFCR) for the wine sector, which states that the carbon contained in cork oaks should be included in the analysis as additional environmental information, since their carbon storage exceeds 100 years.

Carbon sequestration capacity varies according to the type of forest, its condition, soil and climate conditions and how it is managed by the owners. The maximum recorded value of 14.7 t CO₂/ha, corresponding to -73t CO₂ per ton of cork, was achieved at Herdade da Machoqueira do Grou, in a year of very favorable environmental conditions, illustrating the close link between the value of services, climatic conditions and management practices.

About the studies

Guidelines – 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 – 1000 stoppers.

Modelling software and database – SimaPro 9 with ecoinvent 3.5 database / EcobilanLCA database and PwC's specific life cycle analysis software –TEAM®.

Method – Midpoint characterization factors recommended by the International Reference Life Cycle Data System (ILCD).

Data collection procedure – Amorim data using questionnaires from years 2018, 2019 and 2021 respectively.

Additional information on carbon sequestration potential

1. Study

The allegations regarding carbon sequestration potential are based on the studies conducted by Ernst & Young (Acquamark, Twin Top, Twin Top Evo, Advantec, 2D and agglomerated sparkling stopper, Spark One, Top Series wood Neutrocork, Top Series plastic Neutrocork, Top Series plastic natural and Top Series plastic Neutrocork) or PwCwaterhouseCoopers (Naturity, Xpür and Neutrocork), available at www.amorimcork.com/en/sustainability/studies/ (hereinafter the "Study") carried out exclusively for Corticeira Amorim, following the methodology and assumptions mentioned therein and in a Cradle-to-Gate or Cradle-to-Grave approach, and cannot be used for any other company or product. The Study has not been verified by any regulatory, certifying or similar body that is not part of Ernst & Young or PwCwaterhouseCoopers. The Study also considered a sensitivity analysis and simulation relating to the carbon sequestration of cork oak forests to provide a broader perspective on the global balance of Greenhouse Gases (GHG). This relationship is simulated by analysing carbon sequestration scenarios that can be associated with cork products: i) cork production is undoubtedly the main economic activity of a cork oak forest under exploitation, and it can be argued that cork processing companies are a catalyst in creating economic interest for cork oak forest owners to maintain cork oak exploitation; ii) the Product Environmental Footprint Category Rule (PEFCR) for the wine sector states that the carbon contained in cork oaks should be factored in the analysis as additional environmental information, since their carbon storage exceeds 100 years. Thus, the study considered the carbon sequestration of the cork oak forest associated with cork production.

2. Conclusions

The conclusions on the estimation of the carbon sequestration potential of Corticeira Amorim's products (hereinafter "Conclusions") are therefore based on:

- (i) The sources of emissions and assumptions mentioned in the Study, in the locations and period referred to therein, such as: consumption of raw materials, energy consumption and transport of raw materials, products and by-products. (ii) Carbon sequestration of the cork oak forest, indirectly attributed to Corticeira Amorim's products, considering that its activities contribute to the exploitation of the cork oak forest.

If the company, product and/or these facts, circumstances or hypotheses are changed, the conclusions will necessarily be different.

3. Purpose

The Study and Conclusions are intended to provide non-exhaustive information and conclusions based on the facts, assumptions and methodologies accepted by Ernst & Young and/or PwCwaterhouseCoopers and do not represent or should not be construed as advice, statement, warranties or commercial representation as to the quality and/or ownership of the Product. The results and conclusions of the Study should be considered altogether and not separately. Although Corticeira Amorim believes in the reasonableness of the assumptions, circumstances and methodologies used in the Study, they are all inherently subject to risks, uncertainties, contingencies and other important factors, known or unknown, which may be difficult or impossible to predict, such as the company's sales or financial strategy, national and international economic and financial market conditions, technology, legal and regulatory conditions, the evolution of the utilities sector, hydrological and climatic conditions, the cost of raw materials and energy, among others, which may lead to significant differences between the actual results and the claims and conclusions made. Corticeira Amorim cannot be held liable for any direct, indirect or other damages resulting from the use of the Conclusions and/or the associated Study, either in relation to counterparties or third parties to whom these Conclusions and/or the associated Study have been shown or disclosed in any way.

More information

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