

The Nordic Swan Ecolabel reduces climate impact from candles



55–60%
lower climate impact
when choosing
a Nordic Swan
Ecolabel candle

The Nordic Swan Ecolabel's criteria for candles result in major savings in greenhouse gas emissions due to requirements on renewable raw materials and a ban on using palm oil and soy oil. The reduction can be as high as 60%.

An analysis of the climate effect of choosing a Nordic Swan Ecolabel candle instead of a conventional paraffin candle has been carried out. The analysis is based on a life cycle assessment that focuses solely on greenhouse gas emissions.

The study underscores the advantages of Nordic Swan Ecolabel candles with a markedly lower climate impact. The findings emphasize the importance of considering raw material composition in candle production to mitigate the climate effects associated with their life cycle.

The calculation includes only the requirements that provide the best basis for calculating a direct effect on climate. Two key criteria are taken into account in the study:

- O2, requiring over 90% renewable raw materials in the candle, and
- O3, prohibiting the use of palm and soy oil in vegetable raw materials.

The analysis concludes that the climate impact of Nordic Swan Ecolabel candles is approximately 55–60% lower compared to paraffin candles.

The difference is because Nordic Swan Ecolabel candles are predominantly made from renewable raw materials in the form of by-product animal fat, whereas paraffin candles are made from waste products of crude oil, i.e. a fossil fuel that emits fossil CO₂. The analysis thus shows how important it is to set requirements for the composition of raw materials when manufacturing candles.

Other requirements benefiting the climate and the environment

The Nordic Swan Ecolabel's criteria for candles include a number of other requirements which also have an impact on the environment and people's health. The requirements below are not included in the calculation, as they are not directly relevant for the climate impact. However, they are important for the whole life cycle and demonstrate the Nordic Swan Ecolabel's holistic view of environmental matters.

- No metal in the wick.
- Öko-Tex certified cotton in the wick.
- Chemicals must not be classified as carcinogenic, mutagenic, reprotoxic or harmful to the environment.
- No perfumes or other aromas.
- Soot index, i.e. the amount of soot particles emitted when burning the candle.

The calculation is carried out by RISE — Research Institutes of Sweden, and is based on the Nordic Swan Ecolabel criteria for candles, generation 2.8.