



2025-09-18

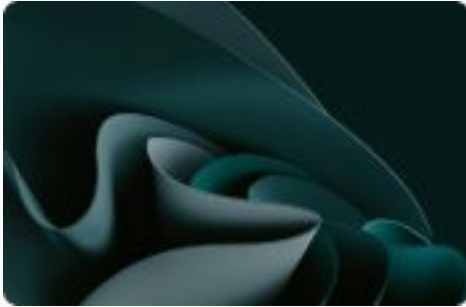
Lyreco LCA

# Life Cycle Assessment

*The methodology in this report is based on ISO 14040*

3077185 (sold in FI)

# Summary



## 01 | Methodology



## 02 | Results

# 01

## Methodology

# Environmental Impact Assessment

## Functional unit

The functional unit is a quantified performance of a product system for use as a reference unit. One of the primary purposes of a functional unit is to provide a reference to which the input and output data are normalized (in a mathematical sense).  
The functional unit of this analysis is "250 page(s) of A4 paper for writing".

## Impact Indicator

The impact is measured through the "IPCC 2013 GWP 100a" method.

## Electricity impact calculation method

Following guidelines from the GHG Protocol, the impact of electricity is calculated using the location-based approach. This means that the emission factors used represent the average annual carbon intensity of the power grid in the country the processes take place in.

## Hypothesis

# Environmental Impact Assessment

## System Boundaries

The scope of this research includes the complete lifecycle of a piece of paper from raw material extraction to disposal options for each material, which is the cradle-to-grave perspective.

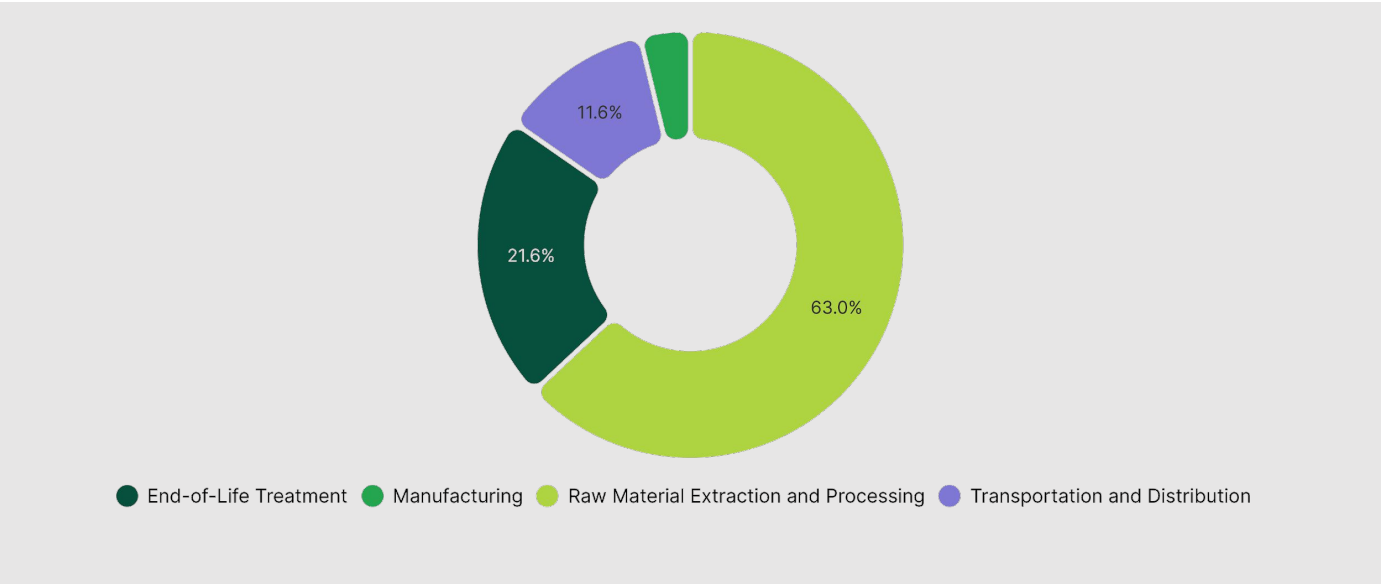
## Exclusions

The impact of secondary packaging impact and writing utensils are excluded from this assessment.

# 02

## Results

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 Climate Change



Step	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Raw Material Extraction and Processing	3.17	63.03 %
End-of-Life Treatment	1.09	21.63 %
Transportation and Distribution	0.58	11.55 %
Manufacturing	0.19	3.79 %
TOTAL	5.04	100.00 %

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# Climate Change - Raw Material Extraction and Processing



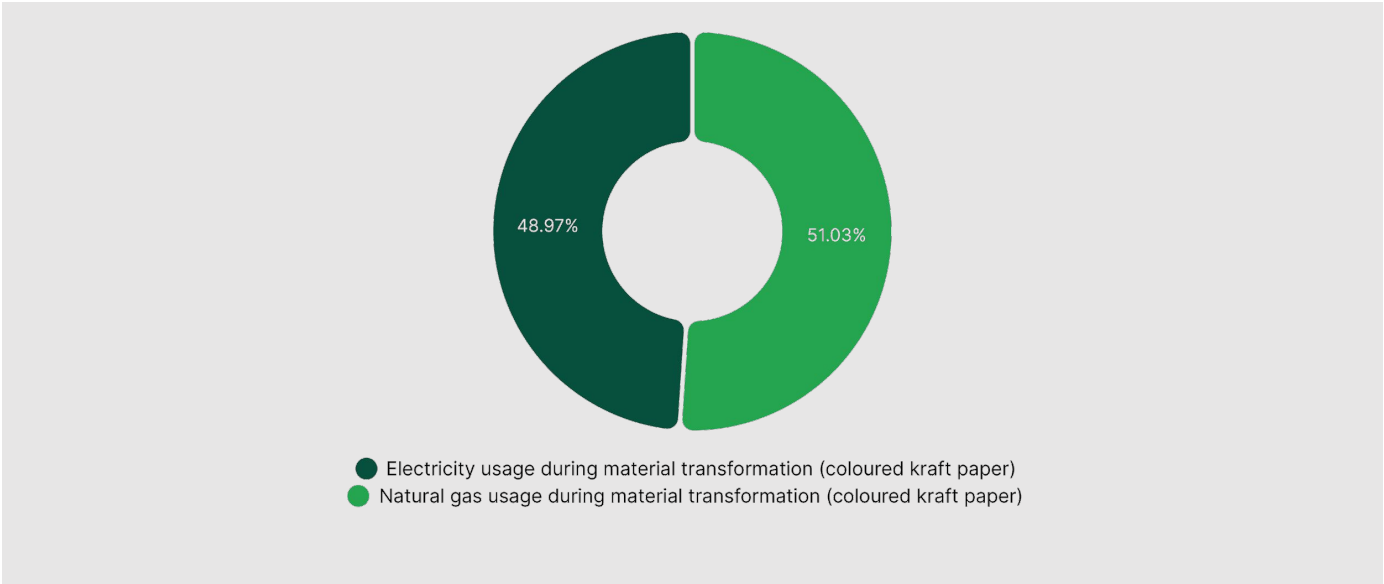
- Sourcing of raw material (coloured kraft paper)

Activity	Emission Factor Num	Quantity	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Sourcing of raw material (coloured kraft paper)	1	2.83	3.17	100.00 %
TOTAL			3.17	100.00 %



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# Climate Change - Manufacturing



Activity	Emission Factor Num	Quantity	Impact (g CO <sub>2</sub> eq)	Percentage (%)
Natural gas usage during material transformation (coloured kraft paper)	3	0.54	97.46	51.03 %
Electricity usage during material transformation (coloured kraft paper)	2	1	93.53	48.97 %
TOTAL			190.99	100.00 %

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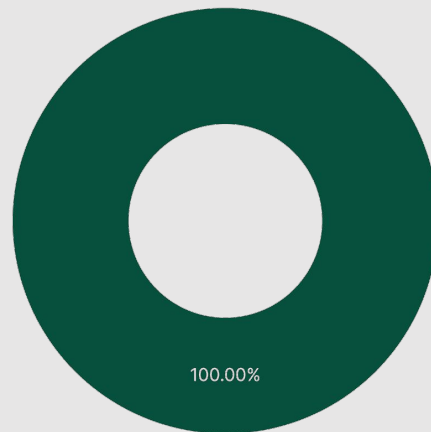
# Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Impact (g CO <sub>2</sub> eq)	Percentage (%)
Freight	4	1.89	581.86	100.00 %
TOTAL			581.86	100.00 %

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# Climate Change - End-of-Life Treatment



- End of life (coloured kraft paper)

Activity	Emission Factor Num	Quantity	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
End of life (coloured kraft paper)	5	1.89	1.09	100.00 %
TOTAL			1.09	100.00 %

# Contact us

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[www.greenly.earth](http://www.greenly.earth)