

greenly

2025-09-17

Lyreco LCA

Life Cycle Assessment

The methodology in this report is based on ISO 14040

19197427 (sold in FI)

Summary



01 | Methodology



02 | Results

01

Methodology

Environmental Impact Assessment

<p>Functional unit</p>	<p>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 "1 set(s) of bound pages of paper for the purpose of writing".</p>
<p>Impact Indicator</p>	<p>The impact is measured through the "IPCC 2013 GWP 100a" method.</p>
<p>Electricity impact calculation method</p>	<p>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.</p>
<p>Hypothesis</p>	

Environmental Impact Assessment

System Boundaries

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

Exclusions

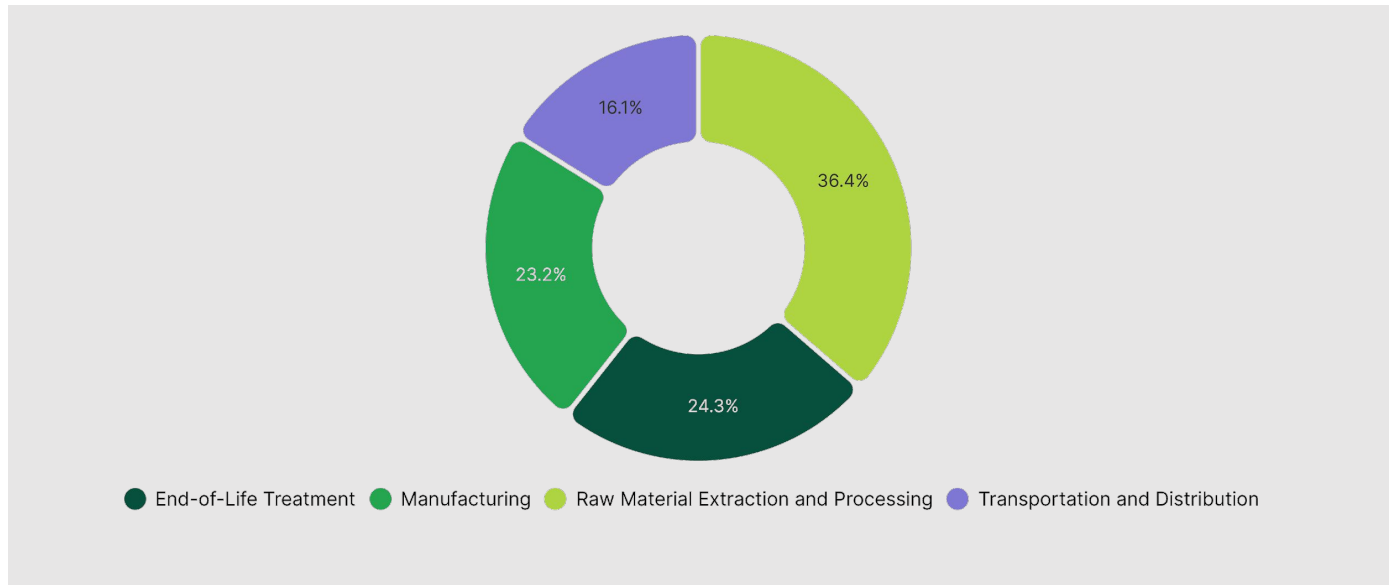
The impact of secondary packaging and writing utensils are excluded from this assessment.

02

Results

19197427 (sold in FI)

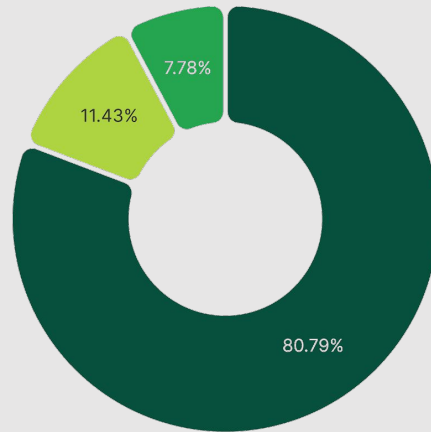
Climate Change



Step	Impact (kg CO ₂ eq)	Percentage (%)
Raw Material Extraction and Processing	0.48	36.35 %
End-of-Life Treatment	0.32	24.30 %
Manufacturing	0.31	23.20 %
Transportation and Distribution	0.21	16.15 %
TOTAL	1.32	100.00 %

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Climate Change - Raw Material Extraction and Processing

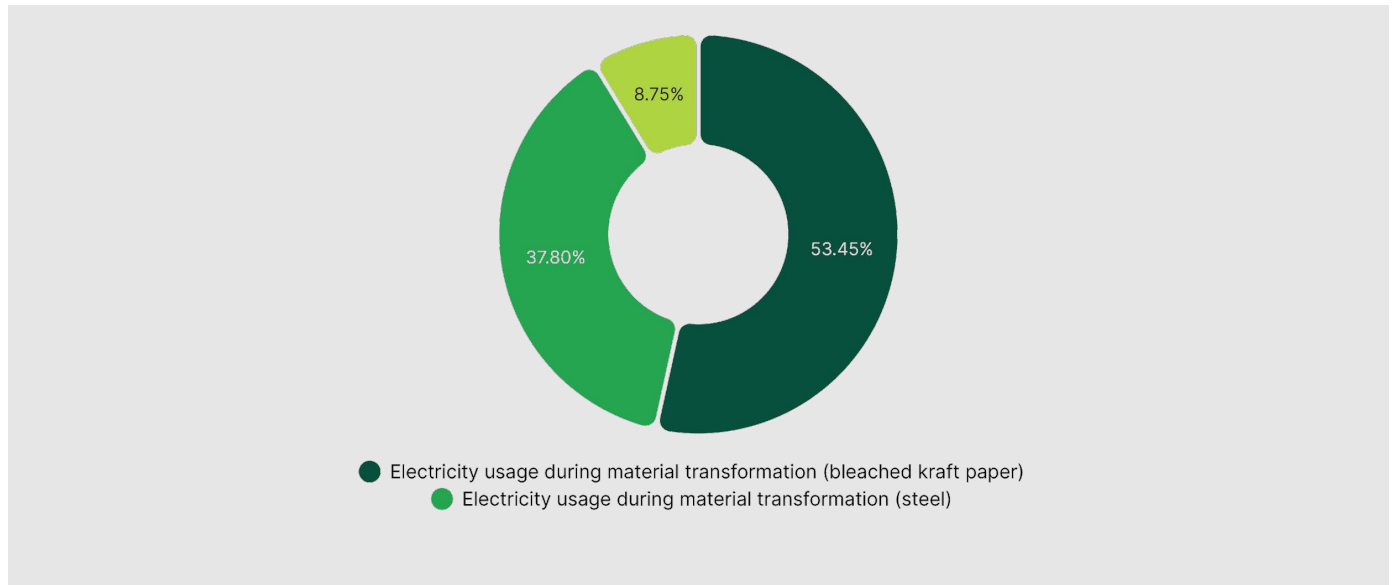


● Sourcing of raw material (bleached kraft paper) ● Sourcing of raw material (cardboard) ● Sourcing of raw material (steel)

Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
Sourcing of raw material (bleached kraft paper)	1	0.78	386.81	80.79 %
Sourcing of raw material (steel)	3	0.03	54.71	11.43 %
Sourcing of raw material (cardboard)	2	0.05	37.23	7.78 %
TOTAL			478.76	100.00 %

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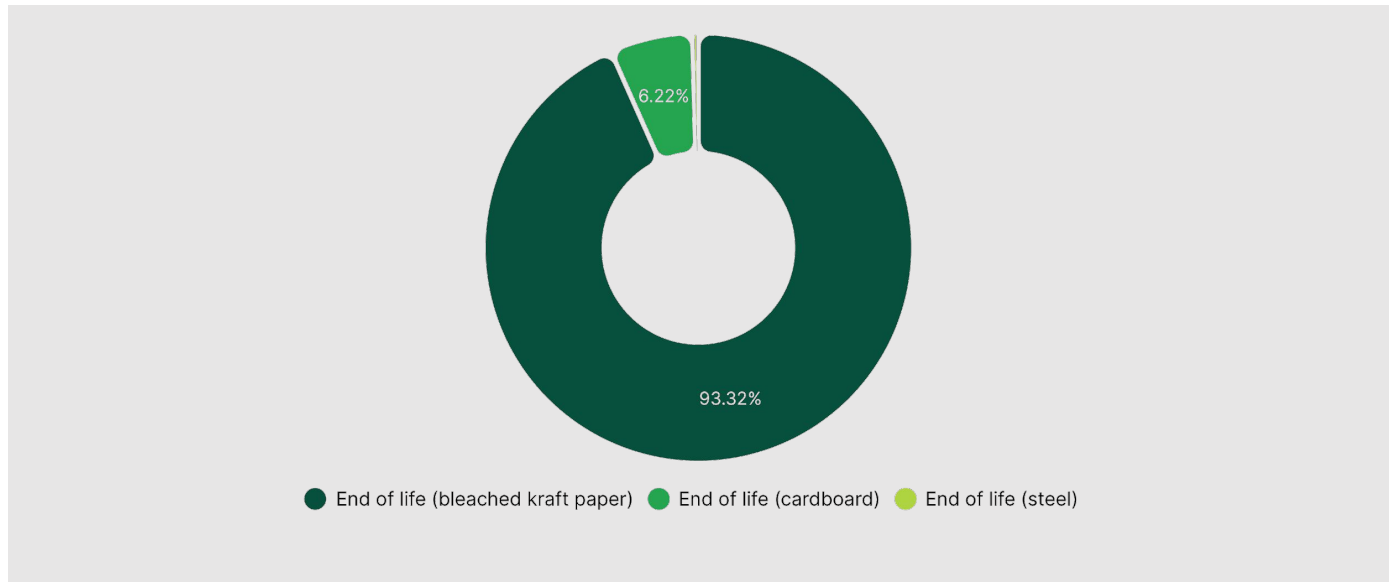
Climate Change - Manufacturing



Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
Electricity usage during material transformation (bleached kraft paper)	4	0.27	163.31	53.45 %
Electricity usage during material transformation (steel)	4	0.19	115.5	37.80 %
Natural gas usage during material transformation (bleached kraft paper)	5	0.15	26.72	8.75 %
TOTAL			305.53	100.00 %

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Climate Change - End-of-Life Treatment



Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
End of life (bleached kraft paper)	8	0.52	298.62	93.32 %
End of life (cardboard)	8	0.03	19.91	6.22 %
End of life (steel)	7	0.02	1.45	0.45 %
TOTAL			319.98	100.00 %

Contact us

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