

greenly

2025-09-17

Lyreco LCA

Life Cycle Assessment

The methodology in this report is based on ISO 14040

4965727 (sold in DE)

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 "12 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

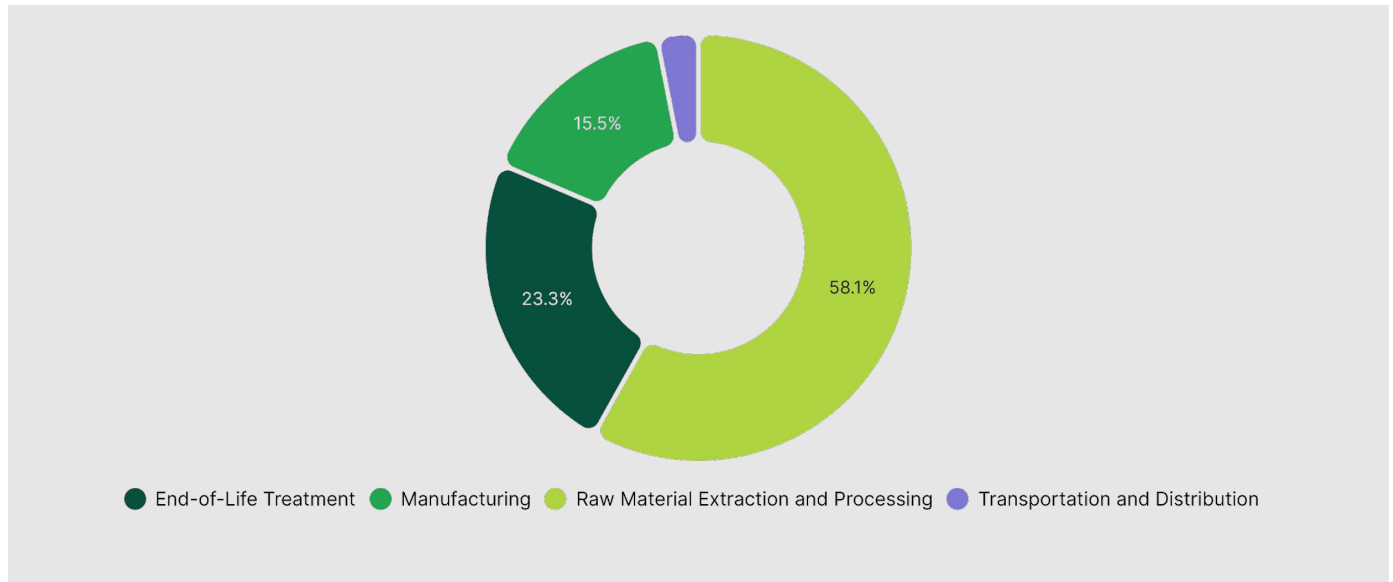
The impact of secondary packaging and writing utensils are excluded from this assessment.

02

Results

4965727 (sold in DE)

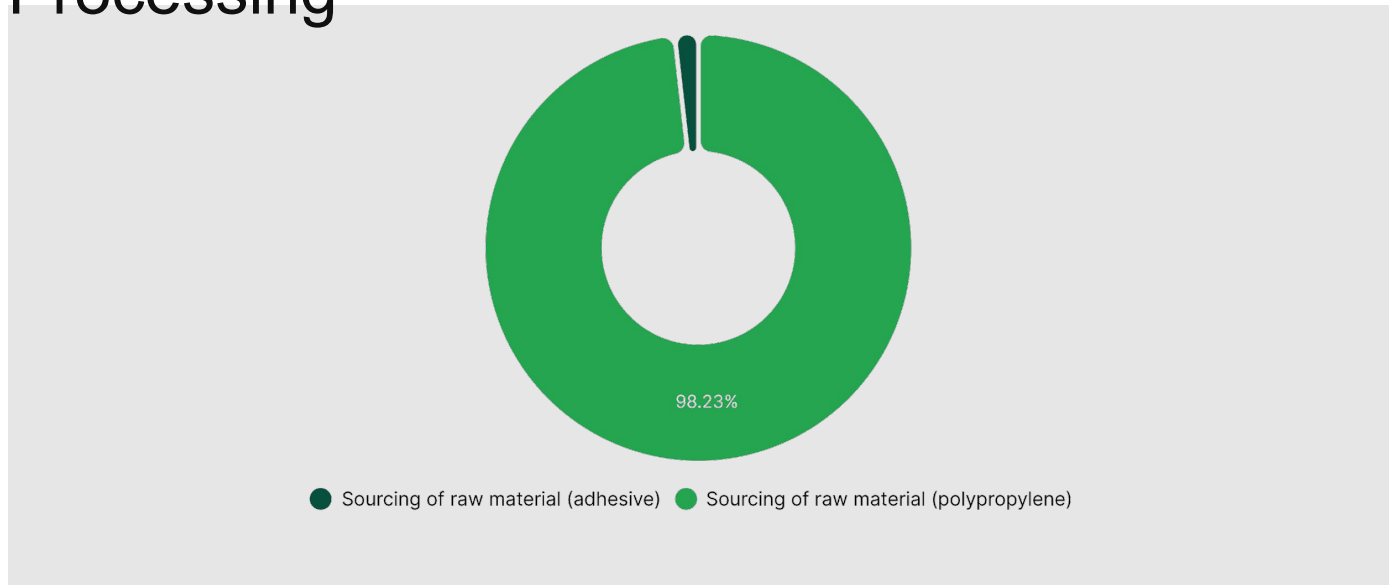
Climate Change



Step	Impact (g CO ₂ eq)	Percentage (%)
Raw Material Extraction and Processing	481.16	58.12 %
End-of-Life Treatment	192.56	23.26 %
Manufacturing	128.41	15.51 %
Transportation and Distribution	25.71	3.11 %
TOTAL	827.85	100.00 %

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Climate Change - Raw Material Extraction and Processing



Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
Sourcing of raw material (polypropylene)	1	0.15	472.63	98.23 %
Sourcing of raw material (adhesive)	2	1.56 · 10 ⁻³	8.53	1.77 %

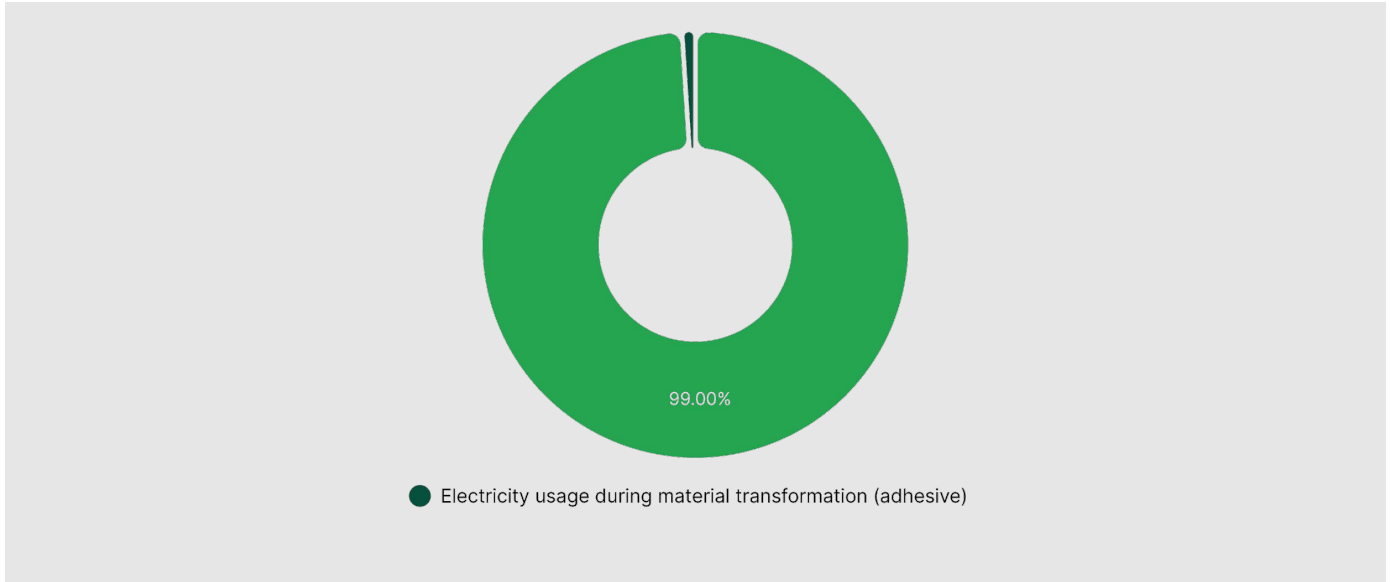
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TOTAL			481.16	100.00 %
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Climate Change - Manufacturing



Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
Electricity usage during material transformation (polypropylene)	3	0.29	127.13	99.00 %
Electricity usage during material transformation (adhesive)	3	2.9 · 10 ⁻³	1.28	1.00 %
TOTAL			128.41	100.00 %

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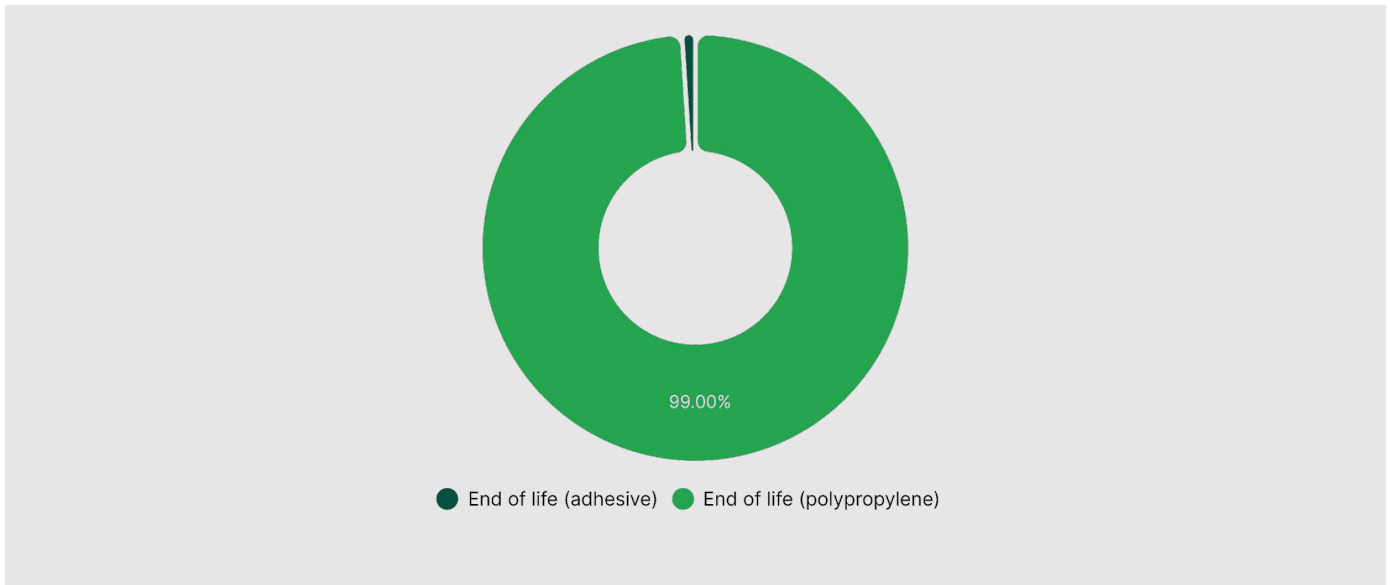
Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
Freight	4	0.14	25.71	100.00 %
TOTAL			25.71	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 (polypropylene)	5	0.14	190.64	99.00 %
End of life (adhesive)	5	1.42 · 10 ⁻³	1.93	1.00 %
TOTAL			192.56	100.00 %

Contact us

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