



2025-09-13

Lyreco LCA

Life Cycle Assessment

The methodology in this report is based on ISO 14040

6.525.572 (sold in IT)

Summary



01 | Methodology



02 | Results

01

Methodology

Environmental Impact Assessment

Functional unit	<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 pair(s) of gloves used for working over a period of one year".</p>
Impact Indicator	<p>The impact is measured through the "IPCC 2013 GWP 100a" method.</p>
Electricity impact calculation method	<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>
Hypothesis	<p>The Product's material composition is supplemented, if necessary, by secondary information as shown in the list below.</p> <ul style="list-style-type: none">- Synthetic Fiber 90%- Polyurethane 10% <p>Manufacturing Processes and associated loss percentages are assumed based on materials in the product.</p> <p>The electricity is based on the average in the country of manufacturing.</p> <p>Transportation is based on the common routes between the country of manufacturing and the country of sale.</p> <p>No replacements during the lifetime, therefore there are no emissions corresponding to the usage phase of the clipboard.</p> <p>The End of Life is based on the average waste management process of the materials in the product.</p>

Environmental Impact Assessment

System Boundaries

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

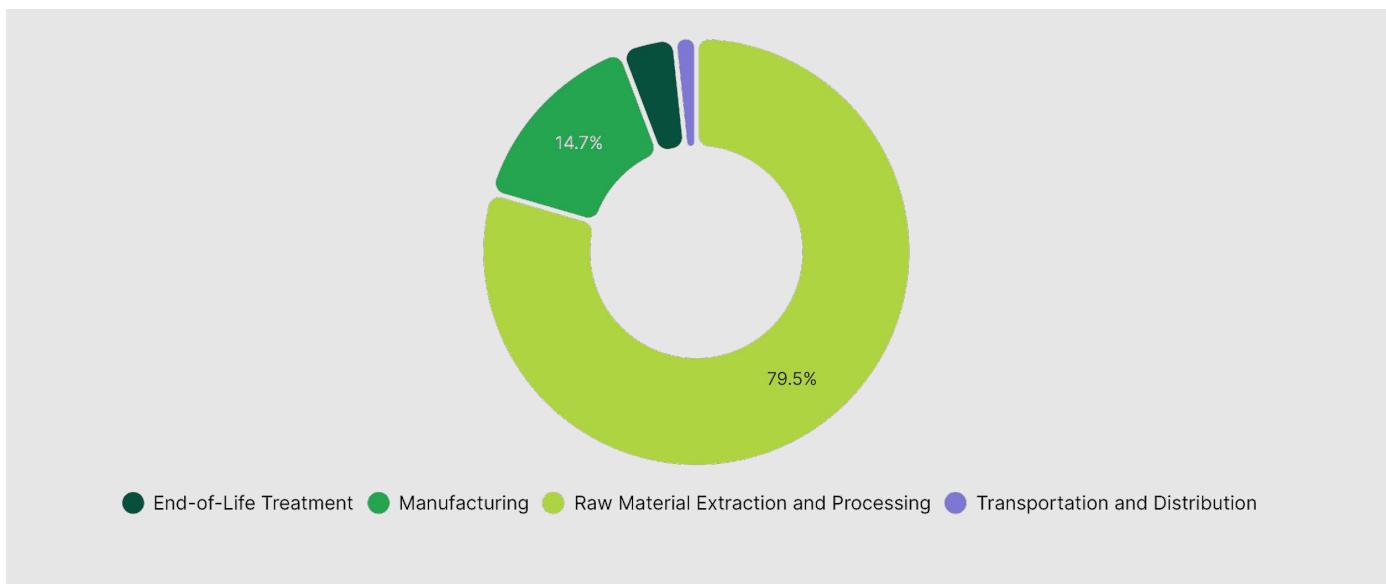
Exclusions

The impact of secondary packaging and any repair are excluded from this assessment.

02

Results

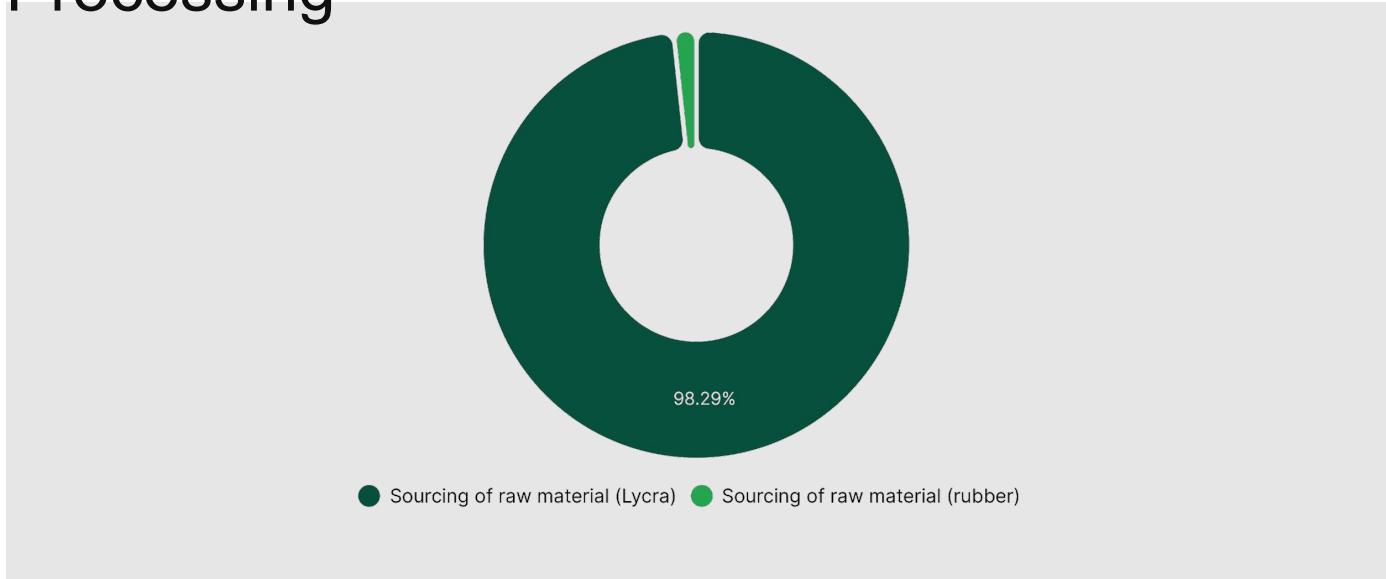
6.525.572 (sold in IT)
Climate Change



Step	Impact (g CO ₂ eq)	Percentage (%)
Raw Material Extraction and Processing	786.21	79.50 %
Manufacturing	145.81	14.74 %
End-of-Life Treatment	40.61	4.11 %
Transportation and Distribution	16.32	1.65 %
TOTAL	988.95	100.00 %

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Climate Change - Raw Material Extraction and Processing

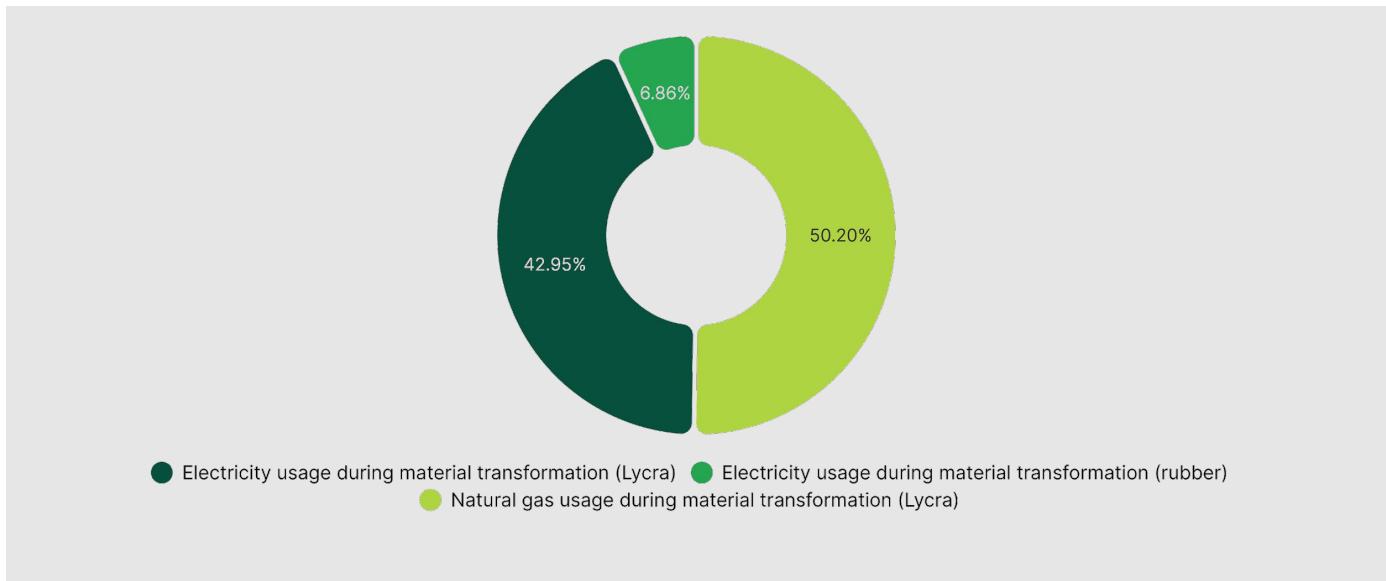


Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
Sourcing of raw material (Lycra)	2	0.05	772.79	98.29 %
Sourcing of raw material (rubber)	1	$4.85 \cdot 10^{-3}$	13.41	1.71 %

TOTAL	786.21	100.00 %
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Climate Change - Manufacturing



Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
Natural gas usage during material transformation (Lycra)	3	0.4	73.19	50.20 %
Electricity usage during material transformation (Lycra)	4	0.1	62.62	42.95 %
Electricity usage during material transformation (rubber)	4	0.02	10	6.86 %
TOTAL			145.81	100.00 %

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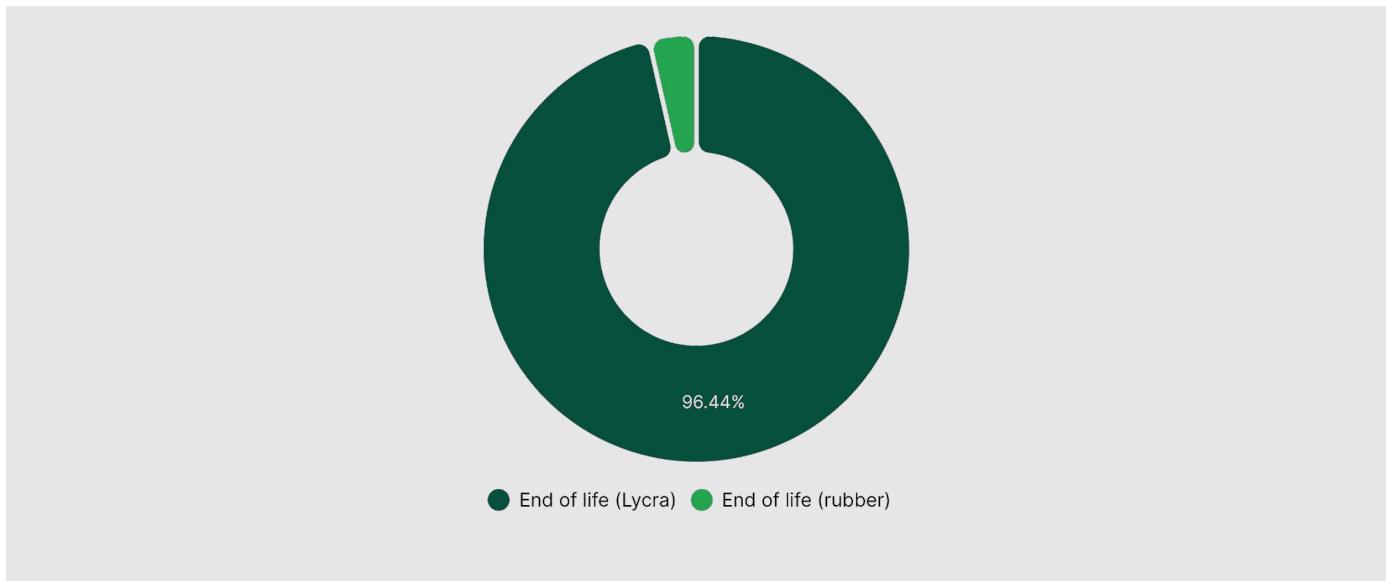
Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
Freight	5	0.04	16.32	100.00 %
TOTAL			16.32	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 (Lycra)	6	0.04	39.17	96.44 %
End of life (rubber)	7	$4.41 \cdot 10^{-3}$	1.44	3.56 %

TOTAL	40.61	100.00 %
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Contact us

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