

greenly

2025-09-15

Lyreco LCA

Life Cycle Assessment

The methodology in this report is based on ISO 14040

13.752.437 (sold in PL)

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).</p> <p>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

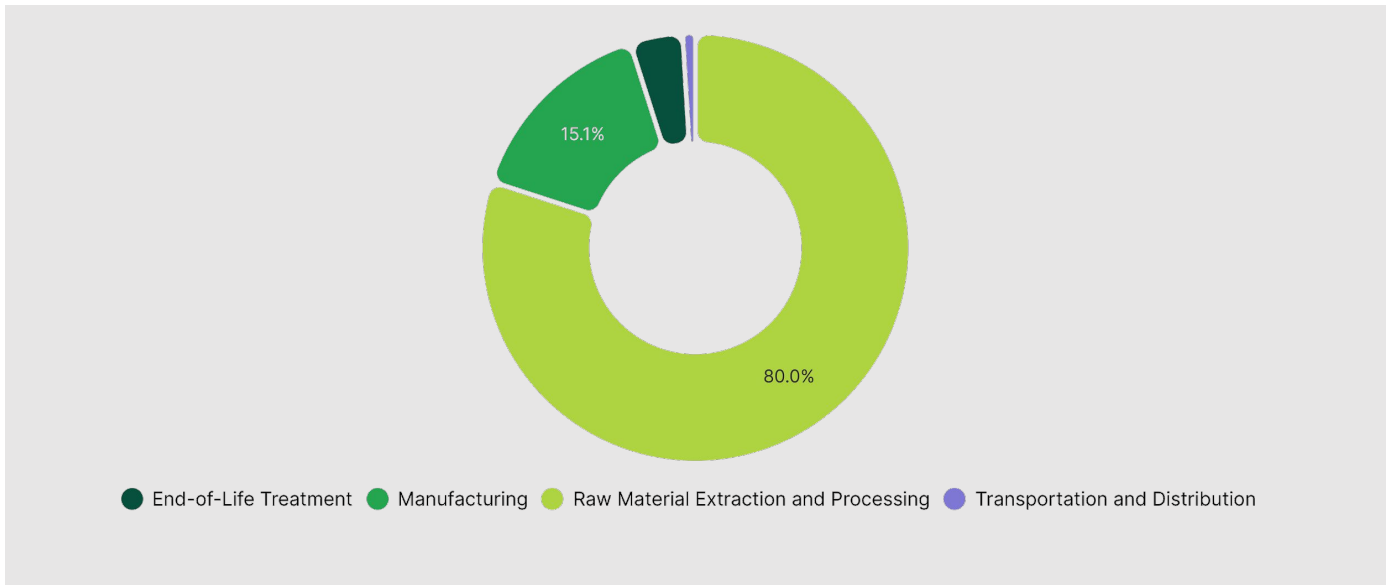
The impact of secondary packaging and any repair are excluded from this assessment.

02

Results

13.752.437 (sold in PL)

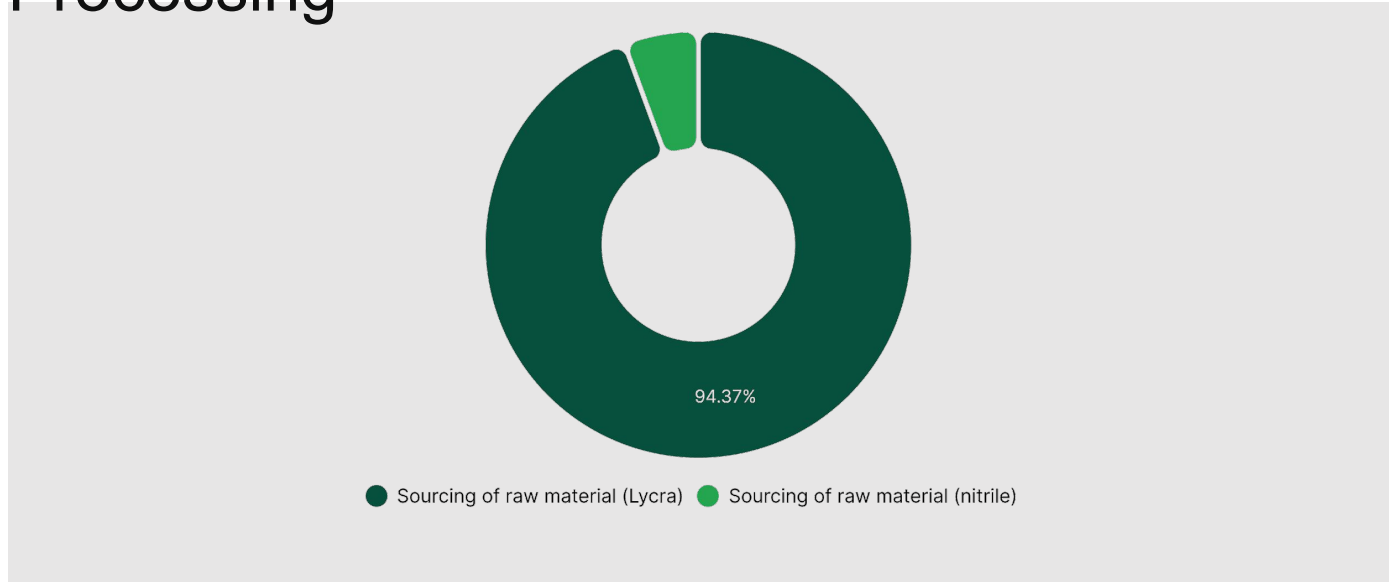
Climate Change



Step	Impact (kg CO ₂ eq)	Percentage (%)
Raw Material Extraction and Processing	1.04	80.00 %
Manufacturing	0.2	15.09 %
End-of-Life Treatment	0.05	3.97 %
Transportation and Distribution	0.01	0.95 %
TOTAL	1.3	100.00 %

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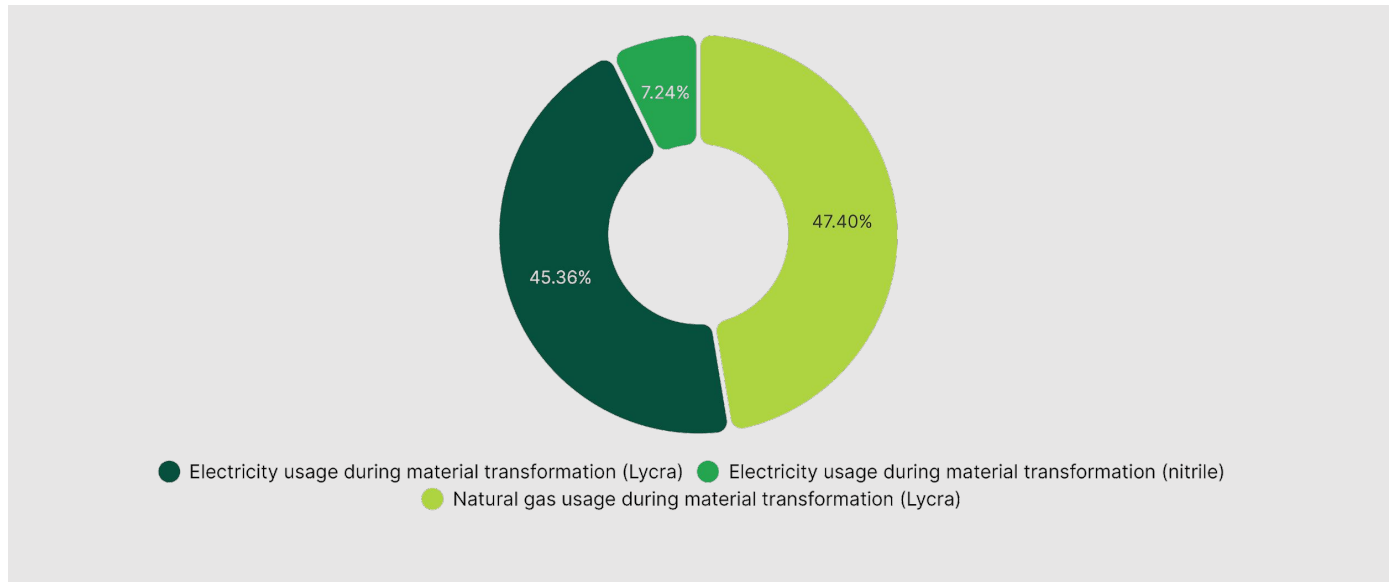
Climate Change - Raw Material Extraction and Processing



Activity	Emission Factor Num	Quantity	Impact (kg CO ₂ eq)	Percentage (%)
Sourcing of raw material (Lycra)	1	0.07	0.98	94.37 %
Sourcing of raw material (nitrile)	2	6.16 · 10 ⁻³	0.06	5.63 %
TOTAL			1.04	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)	4	0.51	92.77	47.40 %
Electricity usage during material transformation (Lycra)	3	0.12	88.79	45.36 %
Electricity usage during material transformation (nitrile)	3	0.02	14.17	7.24 %
TOTAL			195.74	100.00 %

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Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Impact (g CO ₂ eq)	Percentage (%)
Freight	5	0.06	12.27	100.00 %
TOTAL			12.27	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	0.05	49.65	96.44 %
End of life (nitrile)	7	5.6 · 10 ⁻³	1.83	3.56 %
TOTAL			51.48	100.00 %

Contact us

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