



Nordisk Microfiber

Life Cycle Assessment Cradle to Gate

Ultra Tentax Gentle LCD

2025-12-19

Summary



01 | Methodology



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01

Methodology

Environmental Impact Assessment

Functional unit	The functional unit of this analysis is "Product 'Ultra Tentax Gentle LCD' (product code: MIU-4038-G) is made of 70% recycled polyester + 30% polyamide, weighs 0.034 kgs, and is not otherwise certified"
Impact Indicator	The impact is measured through the "EF v3.1 method" method
Hypothesis	<p>The data source for the emission factors is Ecoinvent 3.12. The System Model used is allocation, cut-off by classification.</p> <p>Where data was not available from NMF, conservative estimates have been applied.</p> <p>Assumptions include; origin of raw materials (GLO, IN averages) and manufacturing processes (GLO averages).</p>

Environmental Impact Assessment

System Boundaries

The scope of this study is Cradle-to-Gate and assesses according to EF v3.1 as LCIA (Life Cycle Impact Assessment) method is developed by the European Commission.

This method is compatible with ISO 14040/44 and PEF. This LCA has not been independently reviewed.

Exclusions

The following stages have been excluded: Downstream Transportation, Use and End-of-Life.

Emission Factor Inventory

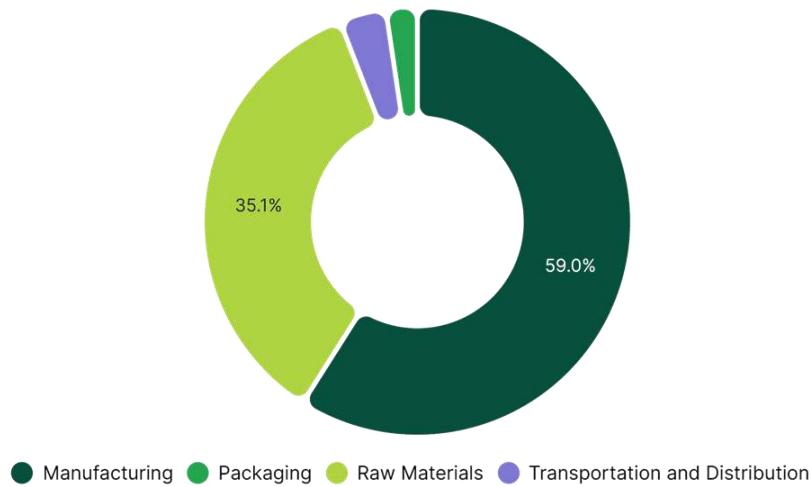
Num	Emission Factor	Source	Value	Unit
1	Polyethylene terephthalate, pellets, recycled fibre based Market for polyethylene terephthalate, pellets, recycled fibre based Market activity	ECOINVENT 3.12	1.23	kg
2	Polyethylene terephthalate, granulate, amorphous Market for polyethylene terephthalate, granulate, amorphous Market activity	ECOINVENT 3.12	3.70	kg
3	Nylon 6-6 Market for nylon 6-6 Market activity	ECOINVENT 3.12	8.32	kg
4	Fibre, polyester Polyester fibre production, finished Ordinary transforming activity	ECOINVENT 3.12	4.78	kg
5	Weaving, synthetic fibre Market for weaving, synthetic fibre Market activity	ECOINVENT 3.12	0.56	kg
6	Corrugated board box Market for corrugated board box Market activity	ECOINVENT 3.12	1.27	kg
7	Packaging film, low density polyethylene Market for packaging film, low density polyethylene Market activity	ECOINVENT 3.12	3.37	kg
8	Transport, freight, sea, container ship, heavy fuel oil Market for transport, freight, sea, container ship, heavy fuel oil Market activity	ECOINVENT 3.12	0.01	metric_t_km
9	Transport, freight, lorry, diesel, unspecified Market for transport, freight, lorry, unspecified Market activity	ECOINVENT 3.12	0.16	metric_t_km

02

Results

Ultra Tentax Gentle LCD

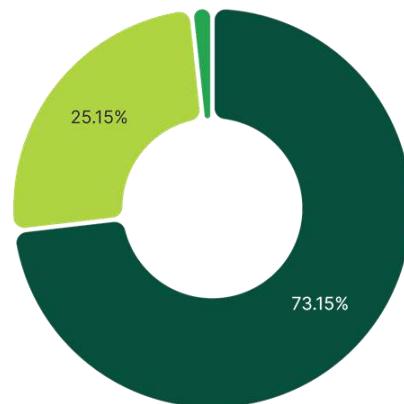
Climate Change



Step	Impact (kg CO ₂ eq)	Percentage (%)
Manufacturing	0.18	59.00 %
Raw Materials	0.11	35.13 %
Transportation and Distribution	0.01	3.52 %
Packaging	7.32 · 10 ⁻³	2.36 %
TOTAL	0.31	100.00 %

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Climate Change - Raw Materials

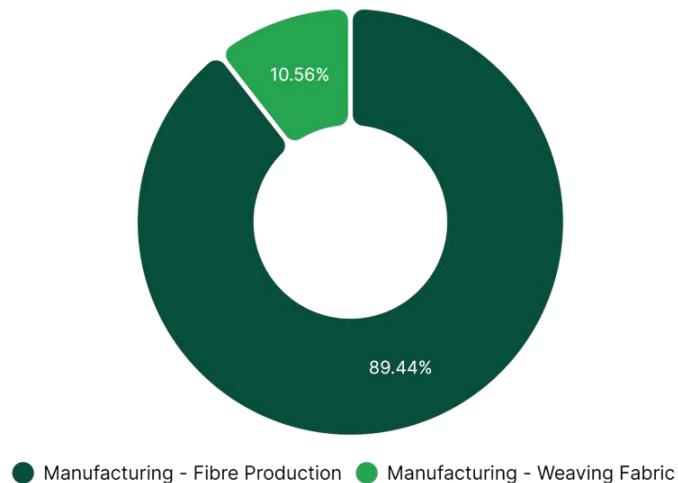


- Polyamide - Main Fabric - Raw Materials - KGs
- Polyester - Label 1 - Raw Materials - KGs
- Recycled Polyester - Main Fabric - Raw Materials - KGs

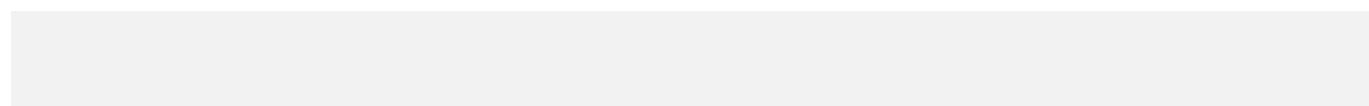
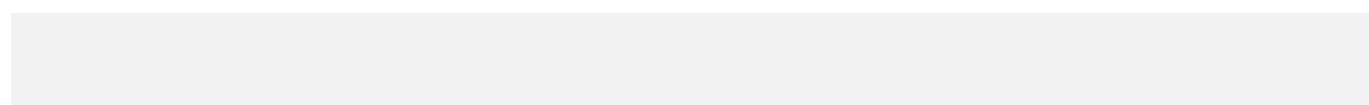
Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Polyamide - Main Fabric - Raw Materials - KGs	3	9.6 · 10 ⁻³	kg	0.08	73.15 %
Recycled Polyester - Main Fabric - Raw Materials - KGs	1	0.02	kg	0.03	25.15 %
Polyester - Label 1 - Raw Materials - KGs	2	5 · 10 ⁻⁴	kg	1.85 · 10 ⁻³	1.69 %
TOTAL				0.11	100.00 %

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Climate Change - Manufacturing



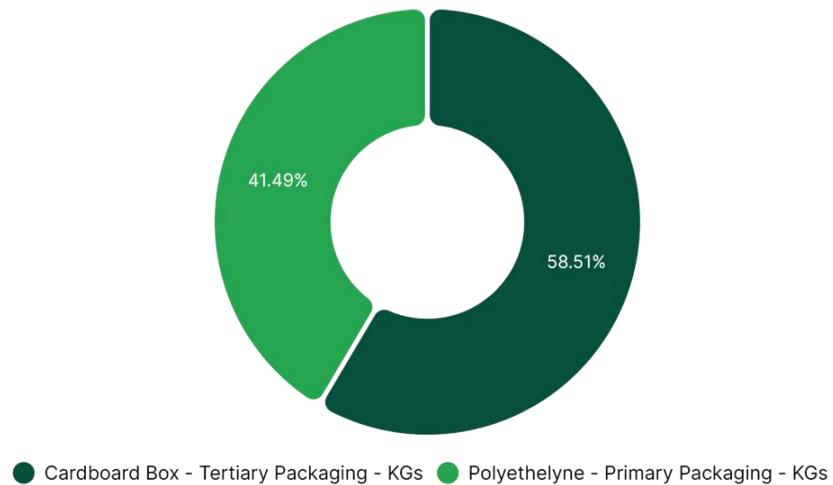
Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Manufacturing - Fibre Production	4	0.03	kg	0.16	89.44 %
Manufacturing - Weaving Fabric	5	0.03	kg	0.02	10.56 %
TOTAL				0.18	100.00 %



TOTAL		0.18	100.00 %
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Climate Change - Packaging



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Cardboard Box - Tertiary Packaging - KGs	6	$3.38 \cdot 10^{-3}$	kg	$4.28 \cdot 10^{-3}$	58.51 %
Polyethelyne - Primary Packaging - KGs	7	$9 \cdot 10^{-4}$	kg	$3.03 \cdot 10^{-3}$	41.49 %
TOTAL				$7.32 \cdot 10^{-3}$	100.00 %

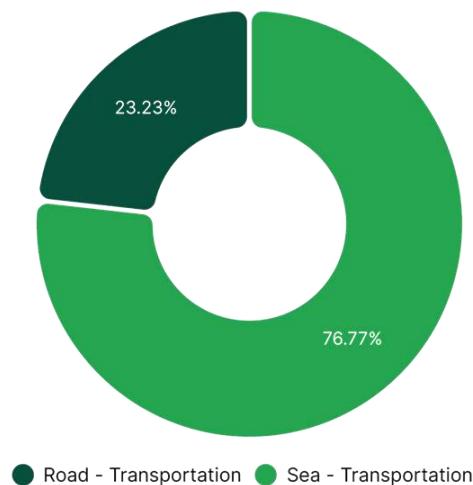
TOTAL

 $7.32 \cdot 10^{-3}$

100.00 %

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Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Sea - Transportation	8	0.87	metric_t_km	$8.38 \cdot 10^{-3}$	76.77 %
Road - Transportation	9	0.02	metric_t_km	$2.53 \cdot 10^{-3}$	23.23 %
TOTAL				0.01	100.00 %

TOTAL

0.01

100.00 %

This LCA was carried out by Sustaina Company
using the Greenly software. This LCA has not
been third party verified.