



Nordisk Microfiber

Life Cycle Assessment Cradle to Gate

Tentax Ultra Shine Glas, 40x40 cm

2025-12-19

Summary



01 | Methodology



02 | Results

01

Methodology

Environmental Impact Assessment

Functional unit	The functional unit of this analysis is "Product 'Tentax Ultra Shine Glas, 40x40 cm' (product code: MIG-4040-B) is made of 82% recycled polyester + 18% polyamide, weighs 0.050 kgs, and is certified under GRS / Swan Ecolabel"
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

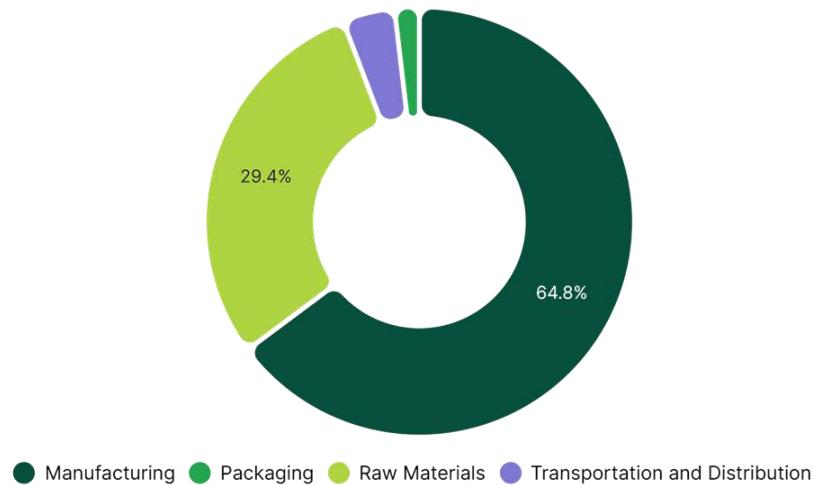
Nu m	Emission Factor	Source	Value	Unit
1	Polyethylene terephthalate, pellets, recycled fibre based Market for polyethylene terephthalate, pellets, recycled fibre based Market activity	ECOINVENT 3.12	1.23	kg
2	Polyethylene terephthalate, granulate, amorphous Market for polyethylene terephthalate, granulate, 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	Weaving, synthetic fibre Market for weaving, synthetic fibre Market activity	ECOINVENT 3.12	0.56	kg
5	Fibre, polyester Polyester fibre production, finished Ordinary transforming activity	ECOINVENT 3.12	4.78	kg
6	Packaging film, low density polyethylene Market for packaging film, low density polyethylene Market activity	ECOINVENT 3.12	3.37	kg
7	Corrugated board box Market for corrugated board box Market activity	ECOINVENT 3.12	1.27	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

Tentax Ultra Shine Glas, 40x40 cm

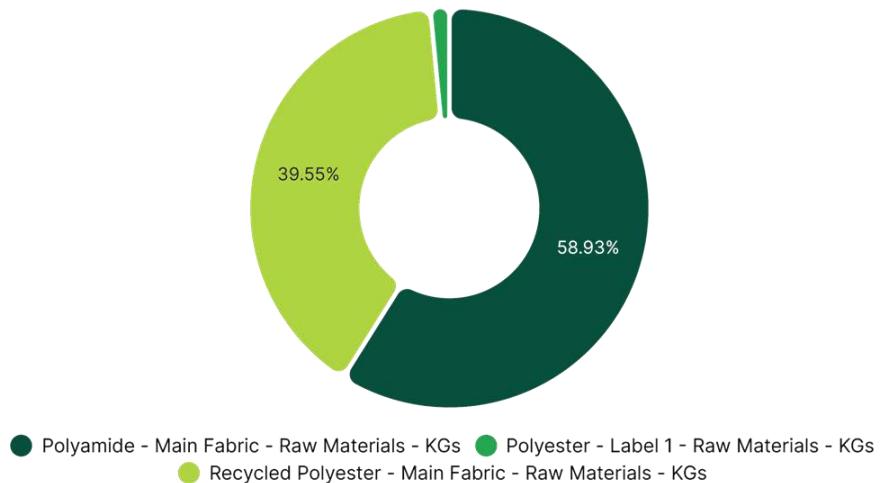
Climate Change



Step	Impact (kg CO ₂ eq)	Percentage (%)
Manufacturing	0.27	64.81 %
Raw Materials	0.12	29.41 %
Transportation and Distribution	0.02	3.93 %
Packaging	7.68 · 10 ⁻³	1.85 %
TOTAL	0.41	100.00 %

Tentax Ultra Shine Glas, 40x40 cm

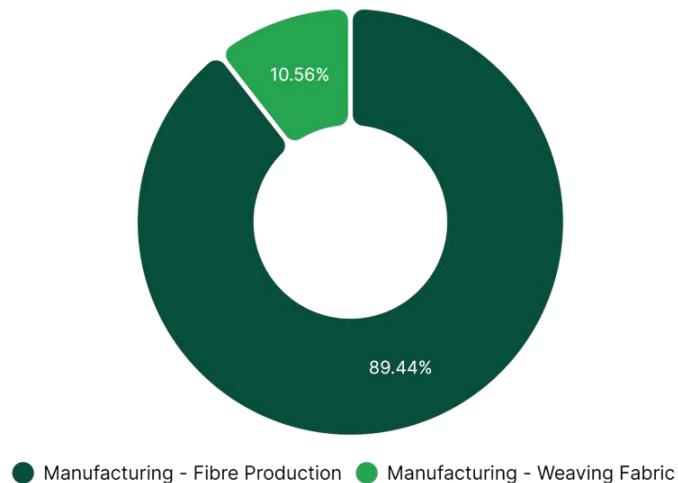
Climate Change - Raw Materials



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Polyamide - Main Fabric - Raw Materials - KGs	3	8.64 · 10 ⁻³	kg	0.07	58.93 %
Recycled Polyester - Main Fabric - Raw Materials - KGs	1	0.04	kg	0.05	39.55 %
Polyester - Label 1 - Raw Materials - KGs	2	5 · 10 ⁻⁴	kg	1.85 · 10 ⁻³	1.52 %
TOTAL				0.12	100.00 %

Tentax Ultra Shine Glas, 40x40 cm

Climate Change - Manufacturing



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Manufacturing - Fibre Production	5	0.05	kg	0.24	89.44 %
Manufacturing - Weaving Fabric	4	0.05	kg	0.03	10.56 %

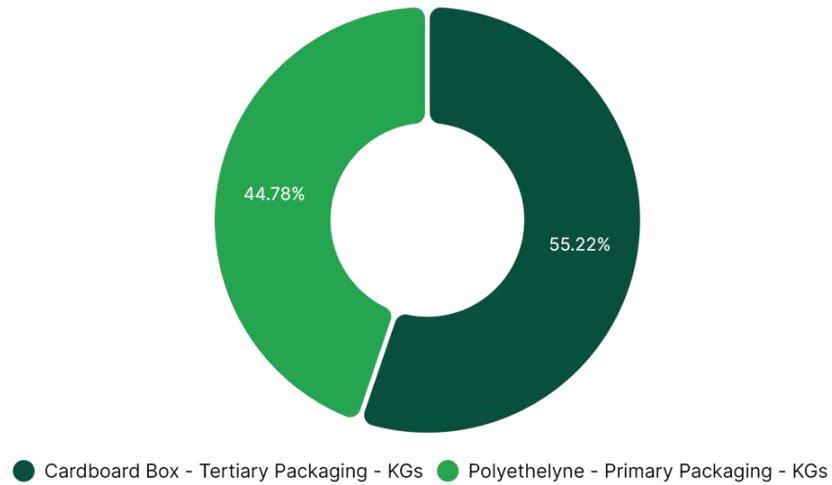
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TOTAL	0.27	100.00 %
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Tentax Ultra Shine Glas, 40x40 cm

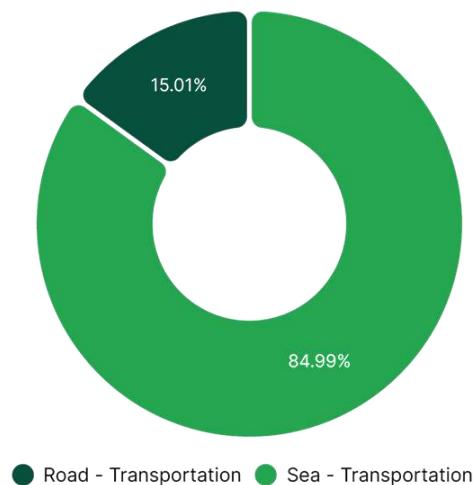
Climate Change - Packaging



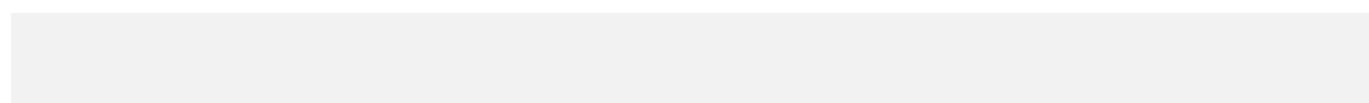
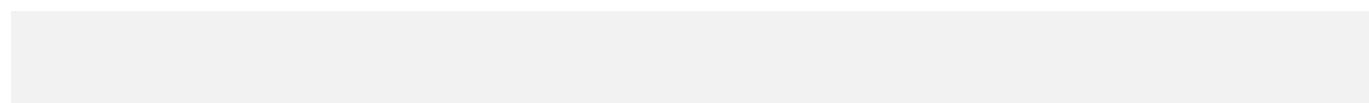
Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Cardboard Box - Tertiary Packaging - KGs	7	$3.35 \cdot 10^{-3}$	kg	$4.24 \cdot 10^{-3}$	55.22 %
Polyethelyne - Primary Packaging - KGs	6	$1.02 \cdot 10^{-3}$	kg	$3.44 \cdot 10^{-3}$	44.78 %
TOTAL				$7.68 \cdot 10^{-3}$	100.00 %

Tentax Ultra Shine Glas, 40x40 cm

Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Sea - Transportation	8	1.44	metric_t_km	0.01	84.99 %
Road - Transportation	9	0.02	metric_t_km	$2.44 \cdot 10^{-3}$	15.01 %



TOTAL		0.02	100.00 %
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This LCA was carried out by Sustaina Company
using the Greenly software. This LCA has not
been third party verified.