

Nordisk Microfiber

**Life Cycle Assessment
Cradle to Gate**

**Super Tentax Microfiberklud, 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 'Super Tentax Microfiberklud, 40x40 cm' (product code: MIS-4040-B) is made of 61% recycled polyester + 24% polyester + 15% polyamide, weighs 0.052 kgs, and is certified under GRS / Swan Ecolabel"

Impact Indicator

The impact is measured through the "EF v3.1 method" method

Hypothesis

The data source for the emission factors is EcolInvent 3.12. The System Model used is allocation, cut-off by classification.

Where data was not available from NMF, conservative estimates have been applied.

Assumptions include; origin of raw materials (GLO, IN averages) and manufacturing processes (GLO averages).

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

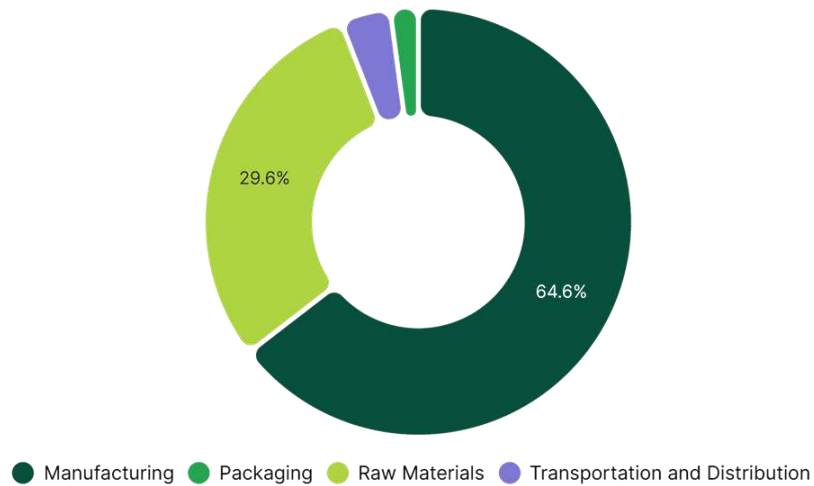
Num	Emission Factor	Source	Value	Unit
1	Polyethylene terephthalate, granulate, amorphous Market for polyethylene terephthalate, granulate, amorphous Market activity	ECOINVENT 3.12	3.70	kg
2	Polyethylene terephthalate, pellets, recycled fibre based Market for polyethylene terephthalate, pellets, recycled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

02

Results

Super Tentax Microfiberklud, 40x40 cm

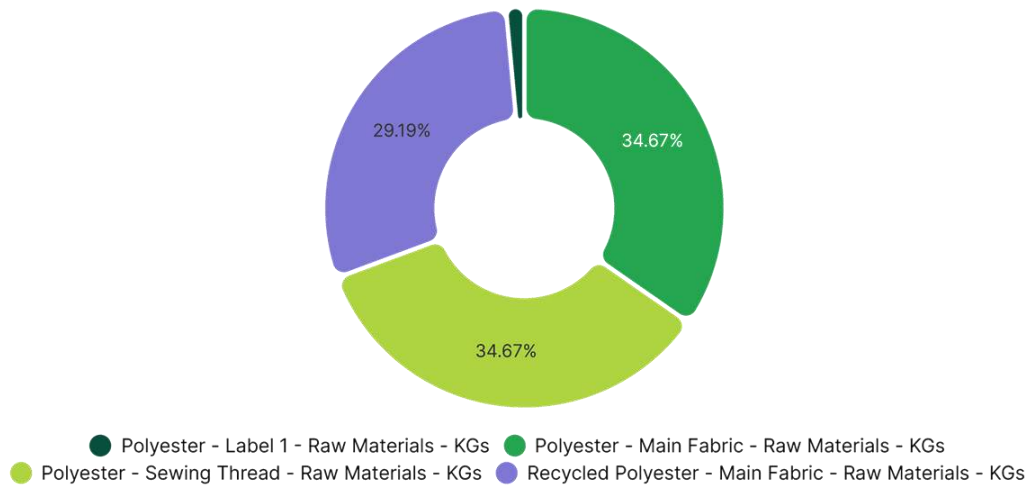
Climate Change



Step	Impact (kg CO ₂ eq)	Percentage (%)
Manufacturing	0.28	64.55 %
Raw Materials	0.13	29.56 %
Transportation and Distribution	0.02	3.78 %
Packaging	9 · 10 ⁻³	2.11 %
TOTAL	0.43	100.00 %

Super Tentax Microfiberklud, 40x40 cm

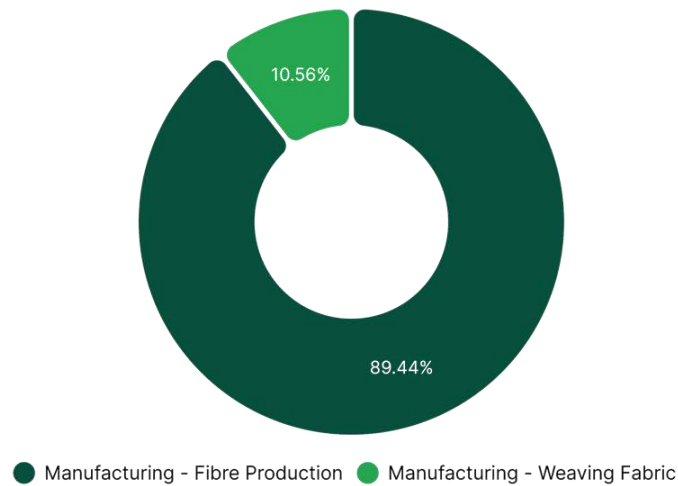
Climate Change - Raw Materials



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Polyester - Sewing Thread - Raw Materials - KGs	1	0.01	kg	0.04	34.67 %
Polyester - Main Fabric - Raw Materials - KGs	1	0.01	kg	0.04	34.67 %
Recycled Polyester - Main Fabric - Raw Materials - KGs	2	0.03	kg	0.04	29.19 %
Polyester - Label 1 - Raw Materials - KGs	1	5 · 10 ⁻⁴	kg	1.85 · 10 ⁻³	1.47 %
TOTAL				0.13	100.00 %

Super Tentax Microfiberklud, 40x40 cm

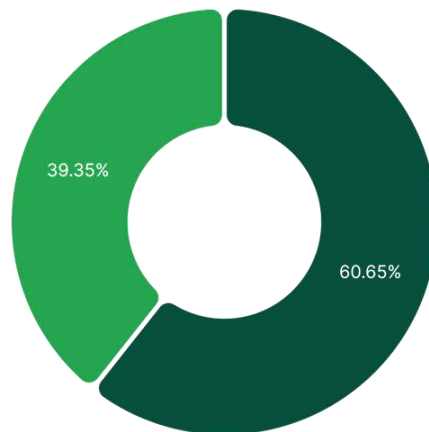
Climate Change - Manufacturing



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Manufacturing – Fibre Production	3	0.05	kg	0.25	89.44 %
Manufacturing – Weaving Fabric	4	0.05	kg	0.03	10.56 %
TOTAL					0.28 100.00 %

Super Tentax Microfiberklud, 40x40 cm

Climate Change - Packaging



● Cardboard Box - Tertiary Packaging - KGs ● Polyethelyne - Primary Packaging - KGs

Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Cardboard Box - Tertiary Packaging - KGs	5	$4.3 \cdot 10^{-3}$	kg	$5.46 \cdot 10^{-3}$	60.65 %
Polyethelyne - Primary Packaging - KGs	6	$1.05 \cdot 10^{-3}$	kg	$3.54 \cdot 10^{-3}$	39.35 %

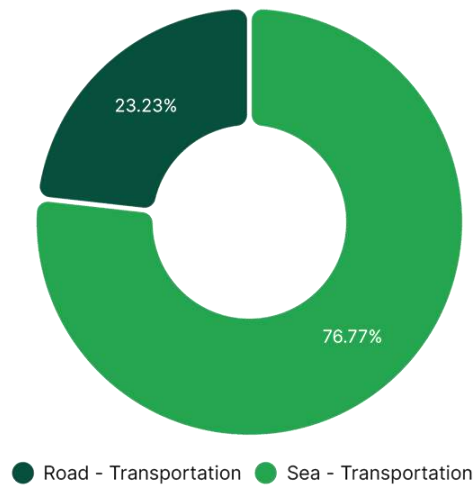
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TOTAL				$9 \cdot 10^{-3}$	100.00 %
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Super Tentax Microfiberklud, 40x40 cm

Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Sea – Transportation	8	1.28	metric_t_km	0.01	76.77 %
Road – Transportation	7	0.02	metric_t_km	3.74 · 10 ⁻³	23.23 %

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.