

**Nordisk Microfiber**

# **Life Cycle Assessment Cradle to Gate**

**Performance Clean Plus Dry Fibre,  
40 cm**

**2025-12-19**

# Summary



## 01 | Methodology



## 02 | Results

# 01

## Methodology

# Environmental Impact Assessment

## Functional unit

The functional unit of this analysis is "Product 'Performance Clean Plus Dry Fibre, 40 cm' (product code: 1540) is made of 100% polyester, weighs 0.074 kgs, and is certified under Oekotex"

## 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

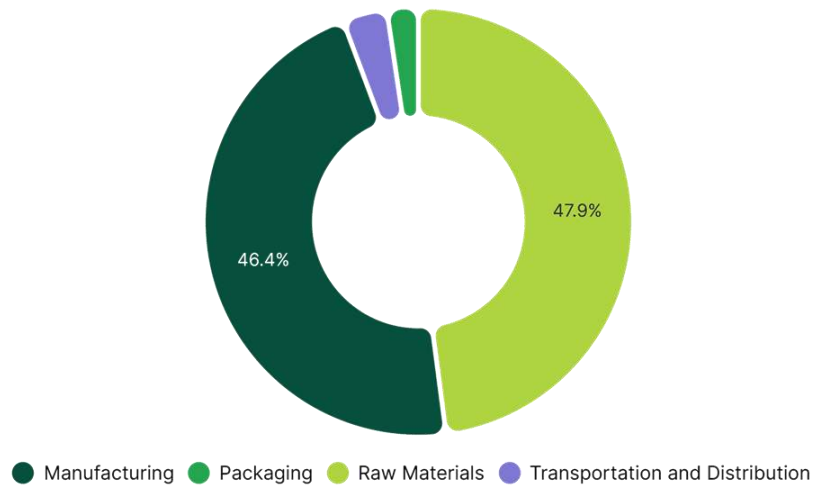
Num	Emission Factor	Source	Value	Unit
1	Polyethylene terephthalate, granulate, amorphous   Market for polyethylene terephthalate, granulate, amorphous   Market activity	ECOINVENT 3.12	3.70	kg
2	Fibre, polyester   Polyester fibre production, finished   Ordinary transforming activity	ECOINVENT 3.12	4.78	kg
3	Weaving, synthetic fibre   Market for weaving, synthetic fibre   Market activity	ECOINVENT 3.12	0.56	kg
4	Corrugated board box   Market for corrugated board box   Market activity	ECOINVENT 3.12	1.27	kg
5	Printed paper   Market for printed paper   Market activity	ECOINVENT 3.12	2.54	kg
6	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
7	Transport, freight, lorry, diesel, unspecified   Market for transport, freight, lorry, unspecified   Market activity	ECOINVENT 3.12	0.16	metric_t_km

# 02

## Results

Performance Clean Plus Dry Fibre, 40 cm

# Climate Change

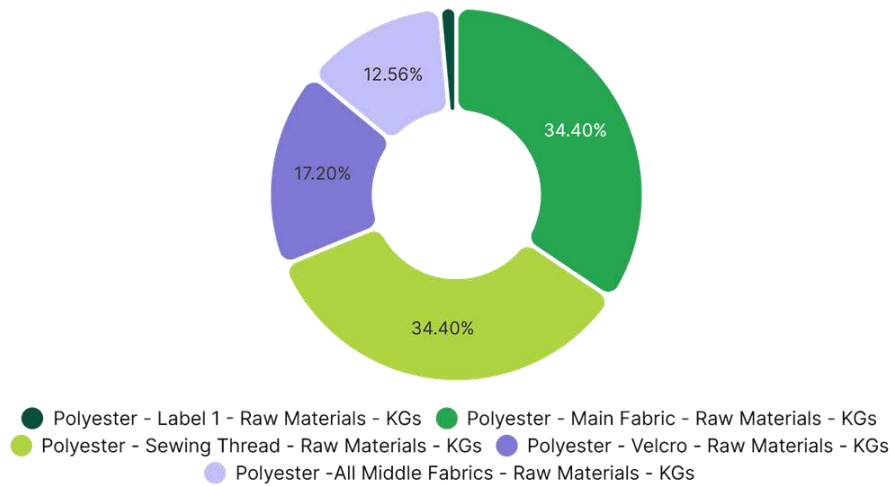


Step	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Raw Materials	0.41	47.93 %
Manufacturing	0.39	46.36 %
Transportation and Distribution	0.03	3.35 %
Packaging	0.02	2.36 %
TOTAL	0.85	100.00 %



Performance Clean Plus Dry Fibre, 40 cm

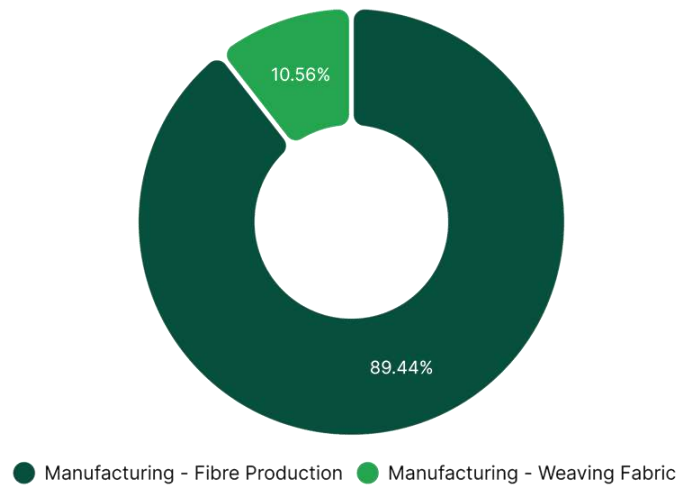
# Climate Change - Raw Materials



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Polyester - Main Fabric - Raw Materials - KGs	1	0.04	kg	0.14	34.40 %
Polyester - Sewing Thread - Raw Materials - KGs	1	0.04	kg	0.14	34.40 %
Polyester - Velcro - Raw Materials - KGs	1	0.02	kg	0.07	17.20 %
Polyester - All Middle Fabrics - Raw Materials - KGs	1	0.01	kg	0.05	12.56 %
Polyester - Label 1 - Raw Materials - KGs	1	$1.58 \cdot 10^{-3}$	kg	$5.84 \cdot 10^{-3}$	1.44 %
TOTAL				0.41	100.00 %

Performance Clean Plus Dry Fibre, 40 cm

# Climate Change - Manufacturing



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Manufacturing – Fibre Production	2	0.07	kg	0.35	89.44 %
Manufacturing – Weaving Fabric	3	0.07	kg	0.04	10.56 %

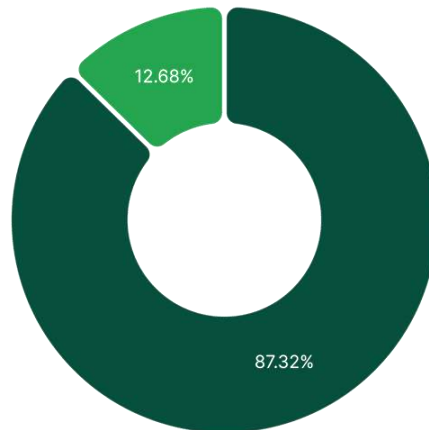
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TOTAL				0.39	100.00 %
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Performance Clean Plus Dry Fibre, 40 cm

## Climate Change - Packaging



● Cardboard Box - Tertiary Packaging - KGs ● Paper Banner - Secondary Packaging - KGs

Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Cardboard Box - Tertiary Packaging - KGs	4	0.01	kg	0.02	87.32 %
Paper Banner - Secondary Packaging - KGs	5	1 · 10 <sup>-3</sup>	kg	2.53 · 10 <sup>-3</sup>	12.68 %

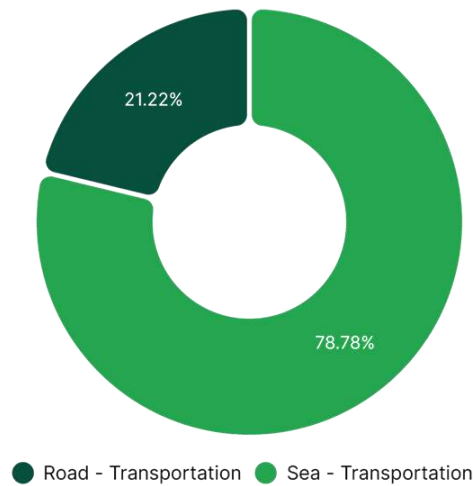
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TOTAL				0.02	100.00 %
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Performance Clean Plus Dry Fibre, 40 cm

# Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO <sub>2</sub> eq)	Percentage (%)
Sea - Transportation	6	2.32	metric_t_km	0.02	78.78 %
Road - Transportation	7	0.04	metric_t_km	6.03 · 10 <sup>-3</sup>	21.22 %

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TOTAL				0.03	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.