

Nordisk Microfiber

Life Cycle Assessment Cradle to Gate

**Basic Glass Cloth, Performance,
40x40cm**

2025-12-19

Summary



01 | Methodology



02 | Results

01

Methodology

Environmental Impact Assessment

Functional unit

The functional unit of this analysis is "Product 'Basic Glass Cloth, Performance, 40x40cm' (product code: 2210-4050-B) is made of 80% polyester + 20 % polyamide, weighs 0.046 kgs, and is certified under Oeko-tex"

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

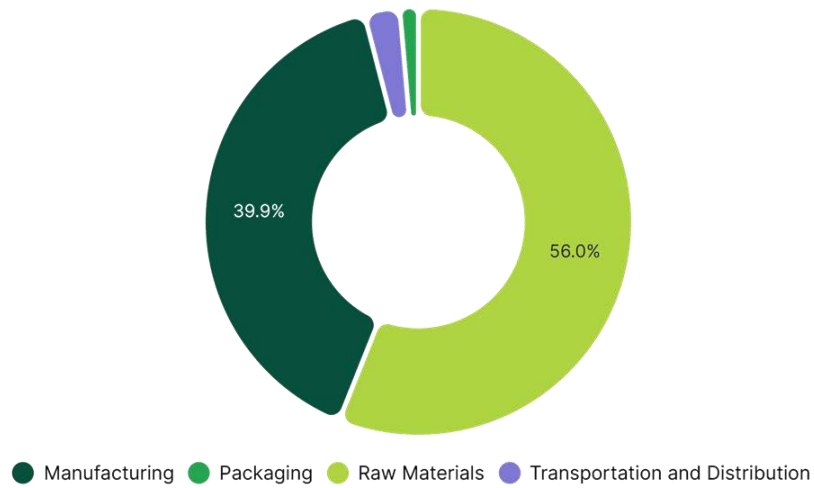
Nu m	Emission Factor	Source	Value	Unit
1	Polyethylene terephthalate, granulate, amorphous Market for polyethylene terephthalate, granulate, amorphous Market activity	ECOINVENT 3.12	3.70	kg
2	Nylon 6–6 Market for nylon 6–6 Market activity	ECOINVENT 3.12	8.32	kg
3	Fibre, polyester Polyester fibre production, 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	Printed paper Market for printed paper Market activity	ECOINVENT 3.12	2.54	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, lorry, diesel, unspecified Market for transport, freight, lorry, unspecified Market activity	ECOINVENT 3.12	0.16	metric_t_km
9	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

Basic Glass Cloth, Performance, 40x40cm

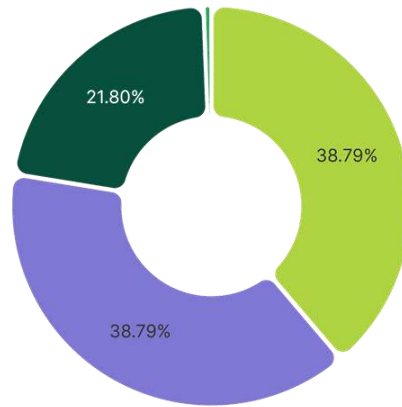
Climate Change



Step	Impact (kg CO ₂ eq)	Percentage (%)
Raw Materials	0.34	56.05 %
Manufacturing	0.24	39.89 %
Transportation and Distribution	0.02	2.67 %
Packaging	8.49 · 10 ⁻³	1.39 %
TOTAL	0.61	100.00 %

Basic Glass Cloth, Performance, 40x40cm

Climate Change - Raw Materials

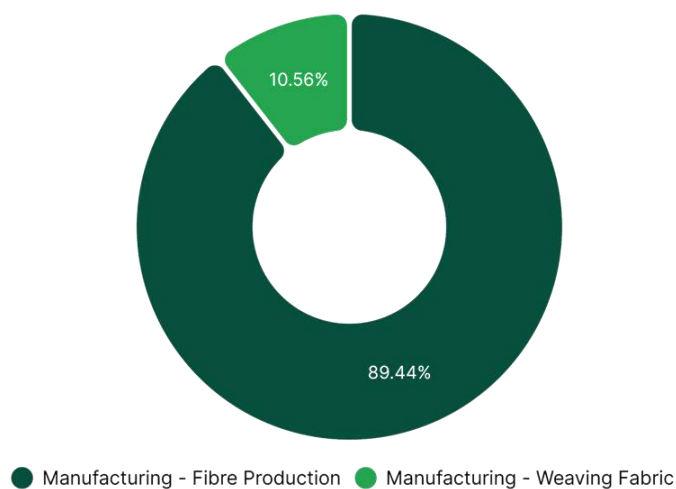


● Polyamide - Main Fabric - Raw Materials - KGs
 ● Polyester - Label 1 - Raw Materials - KGs
 ● Polyester - Main Fabric - Raw Materials - KGs
 ● Polyester - Sewing Thread - Raw Materials - KGs

Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Polyester - Sewing Thread - Raw Materials - KGs	1	0.04	kg	0.13	38.79 %
Polyester - Main Fabric - Raw Materials - KGs	1	0.04	kg	0.13	38.79 %
Polyamide - Main Fabric - Raw Materials - KGs	2	$8.95 \cdot 10^{-3}$	kg	0.07	21.80 %
Polyester - Label 1 - Raw Materials - KGs	1	$5.8 \cdot 10^{-4}$	kg	$2.14 \cdot 10^{-3}$	0.63 %
TOTAL				0.34	100.00 %

Basic Glass Cloth, Performance, 40x40cm

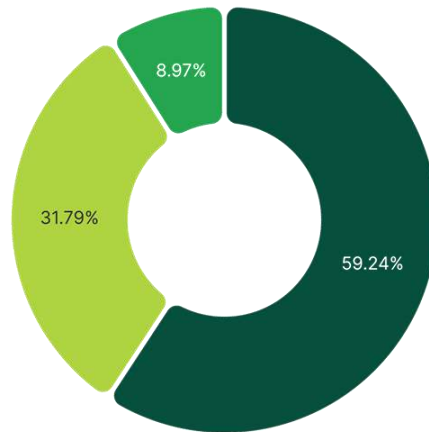
Climate Change - Manufacturing



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Manufacturing – Fibre Production	3	0.05	kg	0.22	89.44 %
Manufacturing – Weaving Fabric	4	0.05	kg	0.03	10.56 %
TOTAL				0.24	100.00 %

Basic Glass Cloth, Performance, 40x40cm

Climate Change - Packaging

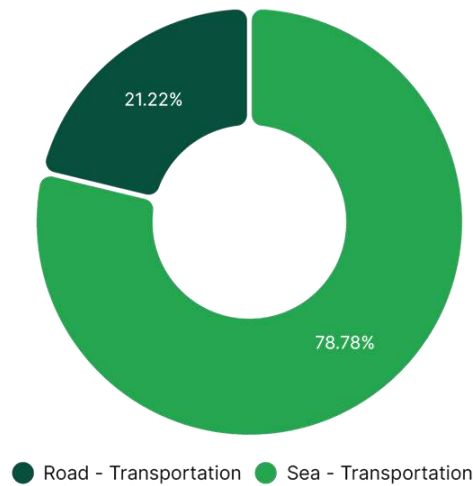


● Cardboard Box - Tertiary Packaging - KGs ● Paper Sticker - Primary Packaging - KGs

Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Cardboard Box – Tertiary Packaging – KGs	6	$3.96 \cdot 10^{-3}$	kg	$5.03 \cdot 10^{-3}$	59.24 %
Polyethelyne – Primary Packaging – KGs	7	$8 \cdot 10^{-4}$	kg	$2.69 \cdot 10^{-3}$	31.79 %
Paper Sticker – Primarry Packaging – KGs	5	$3 \cdot 10^{-4}$	kg	$7.61 \cdot 10^{-4}$	8.97 %
TOTAL				$8.49 \cdot 10^{-3}$	100.00 %

Basic Glass Cloth, Performance, 40x40cm

Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Sea - Transportation	9	1.33	metric_t_km	0.01	78.78 %
Road - Transportation	8	0.02	metric_t_km	3.45 · 10 ⁻³	21.22 %

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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.