

Nordisk Microfiber

Life Cycle Assessment Cradle to Gate

Basic Dryp Mop, 40 cm-velcro

2025-12-19

Summary



01 | Methodology



02 | Results

01

Methodology

Environmental Impact Assessment

Functional unit

The functional unit of this analysis is "Product 'Basic Dryp Mop, 40 cm-velcro' (product code: FAM-40) is made of 70% polyester + 30% cotton, weighs 0.101 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

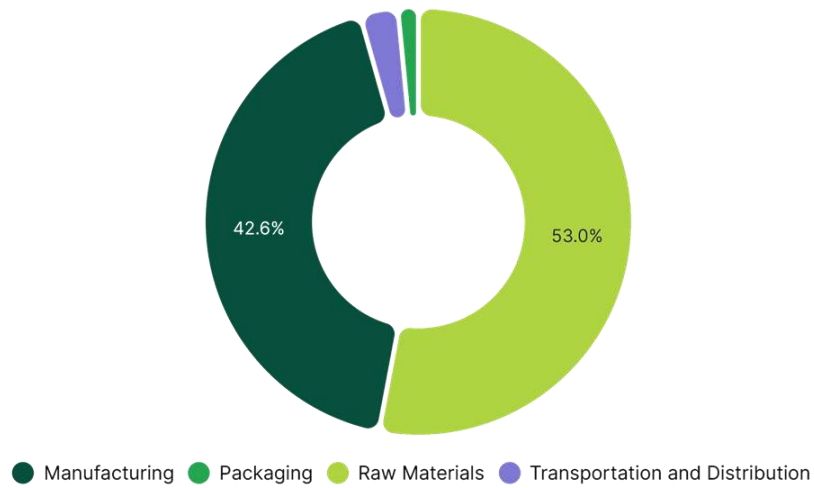
Nu m	Emission Factor	Source	Value	Unit
1	Yarn, cotton Market for yarn, cotton Market activity	ECOINVENT 3.12	7.61	kg
2	Polyethylene terephthalate, granulate, amorphous Market for polyethylene terephthalate, granulate, amorphous Market activity	ECOINVENT 3.12	3.70	kg
3	Polypropylene, granulate Market for polypropylene, granulate Market activity	ECOINVENT 3.12	2.43	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	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	Printed paper Market for printed paper Market activity	ECOINVENT 3.12	2.54	kg
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
10	Transport, freight, lorry, diesel, unspecified Market for transport, freight, lorry, unspecified Market activity	ECOINVENT 3.12	0.16	metric _t_km

02

Results

Basic Dryp Mop, 40 cm-velcro

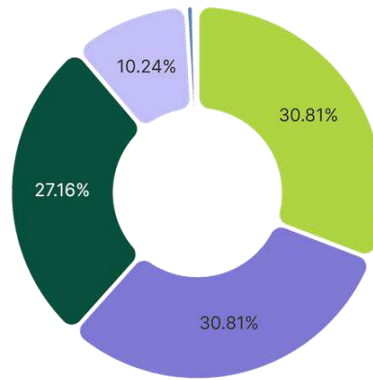
Climate Change



Step	Impact (kg CO ₂ eq)	Percentage (%)
Raw Materials	0.67	52.97 %
Manufacturing	0.54	42.65 %
Transportation and Distribution	0.04	2.86 %
Packaging	0.02	1.53 %
TOTAL	1.26	100.00 %

Basic Dryp Mop, 40 cm-velcro

Climate Change - Raw Materials

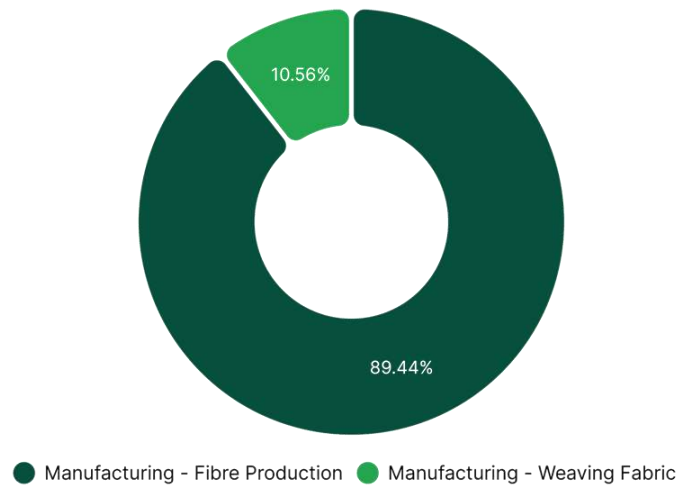


- Cotton - Main Fabric - Raw Materials - KGs
- Polyester - Label 1 - Raw Materials - KGs
- Polyester - Main Fabric - Raw Materials - KGs
- Polyester - Sewing Thread - Raw Materials - KGs
- Polyester - Velcro - Raw Materials - KGs
- Polypropylene - Label 3 - Raw Materials - KGs

Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Polyester - Main Fabric - Raw Materials - KGs	2	0.06	kg	0.21	30.81 %
Polyester - Sewing Thread - Raw Materials - KGs	2	0.06	kg	0.21	30.81 %
Cotton - Main Fabric - Raw Materials - KGs	1	0.02	kg	0.18	27.16 %
Polyester - Velcro - Raw Materials - KGs	2	0.02	kg	0.07	10.24 %
Polypropylene - Label 3 - Raw Materials - KGs	3	$1.8 \cdot 10^{-3}$	kg	$4.38 \cdot 10^{-3}$	0.66 %
Polyester - Label 1 - Raw Materials - KGs	2	$5.8 \cdot 10^{-4}$	kg	$2.14 \cdot 10^{-3}$	0.32 %
TOTAL				0.67	100.00 %

Basic Dryp Mop, 40 cm-velcro

Climate Change - Manufacturing



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Manufacturing – Fibre Production	4	0.1	kg	0.48	89.44 %
Manufacturing – Weaving Fabric	5	0.1	kg	0.06	10.56 %

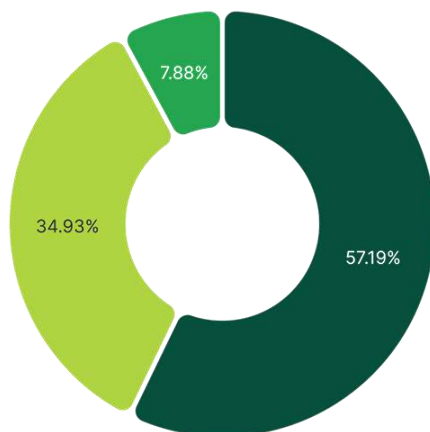
--

--

TOTAL				0.54	100.00 %
-------	--	--	--	------	----------

Basic Dryp Mop, 40 cm-velcro

Climate Change - Packaging

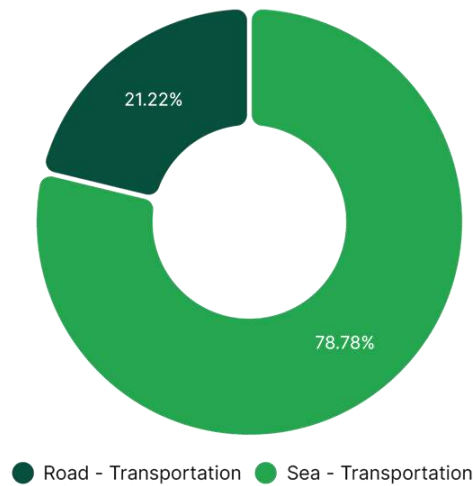


● Cardboard Box - Tertiary Packaging - KGs ● Paper Sticker - Primary Packaging - KGs

Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Cardboard Box – Tertiary Packaging – KGs	7	8.72 · 10 ^{−3}	kg	0.01	57.19 %
Polyethelyne – Primary Packaging – KGs	6	2 · 10 ^{−3}	kg	6.74 · 10 ^{−3}	34.93 %
Paper Sticker – Primarry Packaging – KGs	8	6 · 10 ^{−4}	kg	1.52 · 10 ^{−3}	7.88 %
TOTAL				0.02	100.00 %

Basic Dryp Mop, 40 cm-velcro

Climate Change - Transportation and Distribution



Activity	Emission Factor Num	Quantity	Unit	Impact (kg CO ₂ eq)	Percentage (%)
Sea - Transportation	9	2.94	metric_t_km	0.03	78.78 %
Road - Transportation	10	0.05	metric_t_km	$7.64 \cdot 10^{-3}$	21.22 %

--

--

TOTAL				0.04	100.00 %
-------	--	--	--	------	----------

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