

LCA Information

Style nr. 23002-246

Contracting organization	Mascot International A/S, Denmark
Project team	Corporate Responsibility Department, Mascot International A/S
Review of Mascot's Life-Cycle Assessment (LCA) methodology and product LCA	Quantis Sàrl, Switzerland
Method validity date	December 2023 Methodology is valid for 5 years
Method	ISO 14040:2006 + A1:2020 / ISO 14044:2006 + A1:2018 + A2:2020. Product Environmental Footprint Category Rules (PEFCR) for Apparel and Footwear is followed when possible.
Description of system boundaries	Cradle to grave
LCIA method	EF 3.1 (adapted)
Data collection	Primary data – main source. Generic data from ecoinvent v.3.10 APOS database Reference year is 2024
LCA software used	SimaPro v.9.6.0.1
Data quality	Method for data quality rating (DQR) developed in alignment with the PEF requirements.
Data quality declaration	High (rated as described in PEFCR for Apparel and Footwear).
Limitations	Style studies are based on reference sizes as defined in PEFCR for apparel and footwear. Current model is also based on reference colours. For other sizes and colours, the reader is encouraged to bear this in mind.
LCA methodology summary report	Contact responsibility@mascot.dk if you are interested in the report.

LIFE CYCLE ASSESSMENT FACTSHEET

April 2025 version 2.1

TARGET GROUP

The 23002 is part of a collection designed for a broad target group in different more demanding work situations within contractors, road workers, offshore and wind sector, airport workers and sailors and with laundry agreements.

LONG-LASTING DURABILITY

By analysing fabric performance requirements and collecting data on customer experience, the LCA is verified by Quantis for an estimated duration of service of use in hard working situations and with industrial wash every week.

CRADLE-TO-GRAVE

Cradle-to-grave is a scoping of the LCA that calculates the entire lifecycle of a product from Extraction of Raw materials to the Use & Wash and End-of-Life stages. Cradle-to-grave results are presented per use according to PEF Category Rules for Apparel and Footwear.

METHODOLOGY

MASCOT LCAs is mainly based on primary data from own factories and suppliers. MASCOT LCAs are calculated according to ISO14040/44. The method is verified by Quantis and applies to all colours.

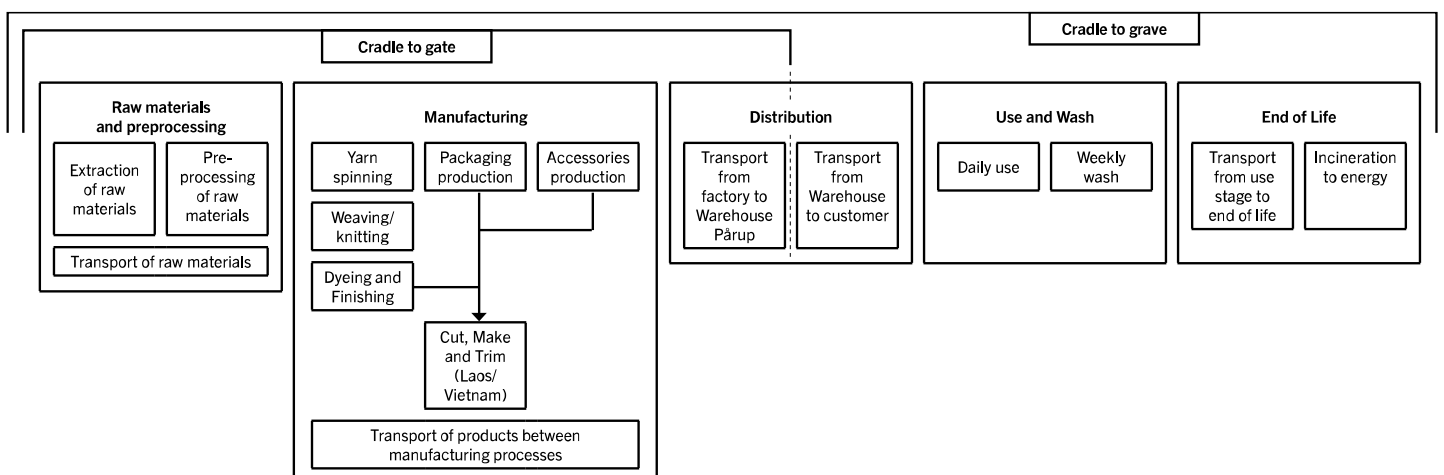


Cradle to Gate:
10,9 kg
CO₂ per
garment

Cradle to
Grave: 0,102 kg
CO₂ per use

Based on an
ISO compliant
methodology
verified by
Quantis

PROCESS CHAIN



THE 16 IMPACT FACTORS

Impact category	Damage assessment unit	Impact to-gate per garment	Impact to-grave per use
Acidification	mol H ⁺ eq	0,0649	0,000392
Climate change	kg CO ₂ eq	10,9	0,102
Climate change - Biogenic	kg CO ₂ eq	0,208	0,00172
Climate change - Fossil	kg CO ₂ eq	10,6	0,0981
Climate change - Land use and LU change	kg CO ₂ eq	0,0156	0,00212
Ecotoxicity, freshwater	CTUe	74,9	0,999
Ecotoxicity, freshwater - part 2	CTUe	63,5	0,301
Ecotoxicity, freshwater - inorganics	CTUe	107	0,988
Ecotoxicity, freshwater - organics part 1	CTUe	5,75	0,233
Ecotoxicity, freshwater - organics part 2	CTUe	25,9	0,0794
Particulate matter	disease inc.	0,00000051	0,0000000343
Eutrophication, marine	kg N eq	0,0149	0,000134
Eutrophication, freshwater	kg P eq	0,000491	0,0000115
Eutrophication, terrestrial	mol N eq	0,147	0,00097
Human toxicity, cancer	CTUh	0,0000000258	0,0000000003
Human toxicity, cancer - inorganics	CTUh	0,00000000151	0,0000000000101
Human toxicity, cancer - organics	CTUh	0,00000000242	0,000000000029
Human toxicity, non-cancer	CTUh	0,000000149	0,000000001
Human toxicity, non-cancer - inorganics	CTUh	0,0000000122	0,000000000089
Human toxicity, non-cancer - organics	CTUh	0,0000000027	0,0000000000111
Ionising radiation	kBq U ⁻²³⁵ eq	1,33	0,00487
Land use	Pt	48,2	0,492
Ozone depletion	kg CFC11 eq	0,000000215	0,00000000581
Photochemical ozone formation	kg NMVOC eq	0,0509	0,000353
Resource use, fossils	MJ	158	1,43
Resource use, minerals and metals	kg Sb eq	0,000207	0,000000758
Water use	m ³ depriv.	11,3	0,0437

Data collection

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Data quality

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MASCOT® ACCELERATE SAFE

Style: 23002-246

Main fabric: 87%rPES/ 13%TPU