

Environmental Product Declaration



In accordance with ISO 14025 and EN 15804 for:

Underlays for discontinuous roofing

from

Nordic Waterproofing AB

NORDIC
WATERPROOFING

Programme:

The International EPD® System, www.environdec.com

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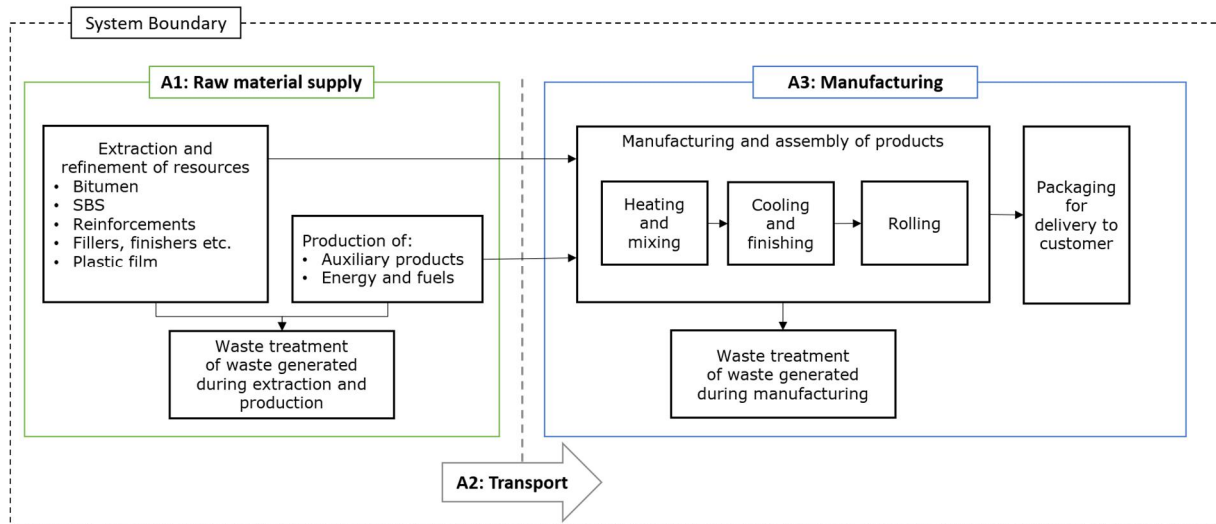


Figure 1. Simplified process tree.

The lifecycle is divided into the following modules:

Module A1

The upstream processes in A1 comprises impacts from extraction and processing of raw bitumen (crude oil), SBS-polymer, non-woven reinforcements, fillers etc. The module also includes the production of purchased electricity and district heating used at the NWP production site.

Module A2

The upstream process in module A2 comprises impacts from transportation of raw materials to the NWP production site.

Module A3

The core process, module A3, includes the manufacturing of the final product, production of packaging materials, use of fuels on site, as well as end-of-life treatment of waste generated during manufacturing.

The manufacturing at NWP is a continuous process. The raw materials, bitumen and polymers, are heated and mixed separately and reinforced with polyester/glass reinforcements. After cooling, the product can be finished by adding polypropylene fleece, polypropylene film and/or polyester fleece.

Cut-off and allocation principles:

Several products are produced at NWP's site in Höganäs. The site data – annual consumption of utilities (energy and non-energy resources), generation of waste and emissions – is allocated to each product group based on production volume (i.e. mass allocation).

In case of recycling or other recovery of generated waste, impacts are borne by the product until it enters the facility gate where the process takes place in accordance with the Polluter Pays Principle. The same method is applied for incoming raw materials of recycled origin, where the product carries the processes required to produce the raw materials from the recycled material, but not the upstream production of the virgin material.

All major raw materials and all the essential energy is included. The requirement that a minimum of 95 % of the total inflows (mass and energy) shall be included is fulfilled.

Waste generation and output flows

Waste generation*

PARAMETER	UNIT	UD2 A1-A3	UD1 A1-A3
Hazardous waste disposed	kg	5.50E-04	7.00E-04
Non-hazardous waste disposed	kg	2.17E-02	3.55E-02
Radioactive waste disposed	kg	2.47E-04	5.56E-04

*Includes waste streams where the treatment process is not included within the system boundaries.

Output flows

PARAMETER	UNIT	UD2 A1-A3	UD1 A1-A3
Components for reuse	kg	0	0
Material for recycling	kg	6.50E-03	1.64E-02
Materials for energy recovery	kg	0	0
Exported energy, electricity	MJ	0	0
Exported energy, thermal	MJ	0	0

UD2 is an average of the products Mataki Haloten 3 5 2, Mataki Haloten D-1 and Kerabit 700 UB.

UD1 is an average of the products Mataki Haloten STEEL, Mataki Haloten Plan and Trebolit UD1 STEEL.

The individual products have been modelled and the difference in the mandatory impact indicators is lower than $\pm 10\%$. In accordance with the Product Category Rules, PCR 2012:01 Construction products and construction services, version 2.31, their environmental performance can thus be grouped and represented by a flat average.

References

PCR 2012:01 Construction products and construction services, version 2.31

EN15804:2012+A1:2013 *Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products*




General Programme Instructions of the International EPD® System. Version 2.5.

ISO 14025 on Type III Environmental declarations.

ISO 14040 and ISO 14044 on Life Cycle Assessments (LCA).

Tollin, S., and Lindén, D. 2020. LCA report for Nordic Waterproofing AB, Bitumen-based roofing membranes, Ramboll, Report No. 1-2020

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