Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

L-Profiles ARSTYL®

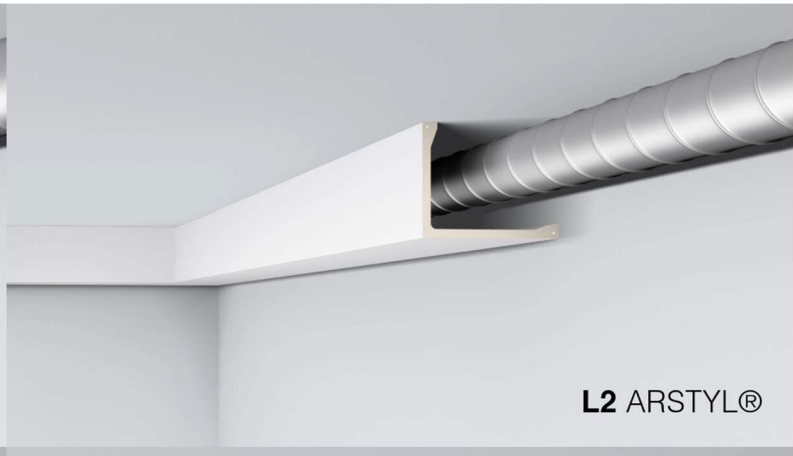
from

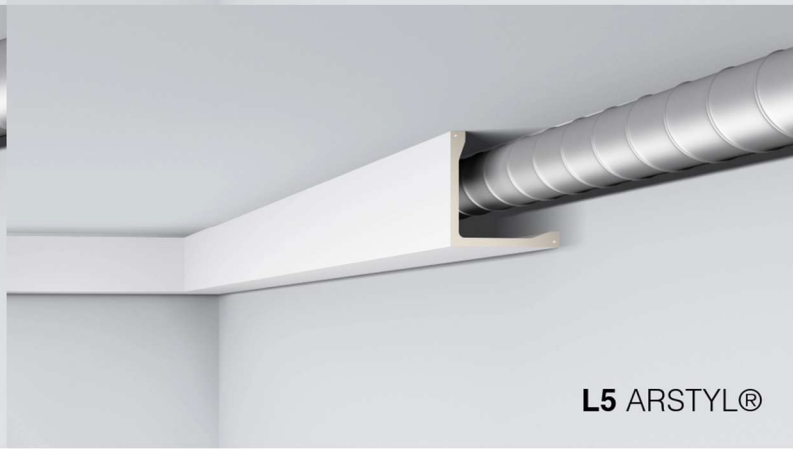
NMC

DESIGN ELEMENTS

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products, based on worst-case results
EPD registration number:	EPD-IES-0026366:001
Version date:	2025-12-03
Validity date:	2030-12-02

An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com





General information

Programme Information	
Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	support@environdec.com

Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): PRODUCT CATEGORY RULES PCR 2019:14 VERSION 2.0.1 CONSTRUCTION PRODUCTS; UN CPC code: 369 (3695)
PCR review was conducted by: The Technical Committee of the International EPD® System. The review panel may be contacted via info@environdec.com. Chair of the PCR review: Rob Rouwette (chair), Noa Meron (co-chair). The review panel may be contacted via the Secretariat www.environdec.com/contact

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ **Individual EPD verification without a pre-verified LCA/EPD tool** Third-party individual verifier: Matthew Fishwick, Fishwick Environmental Ltd Approved by: International EPD System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD:

NMC sa

Address :

NMC sa
Gert-Noël-Strasse
4731 Eynatten
Belgium

Contact:

info@nmc.eu

Description of the organisation:

NMC is a leading, growth-oriented international company specializing in synthetic foams. For more than 70 years, the company has put customers and people at the heart of its actions, identifying more and more products and solutions that contribute to comfort and protection for a better life. Some 1,650 employees at 22 sites currently serve customers in 120 countries. NMC is active in the following sectors: solutions for industries, technical insulation, protective packaging, decorative design elements, underlays for floating floors and sport and leisure.

Product-related or management system-related certifications:

The production site is certified ISO 9001:2015 and ISO 14001:2015 certified.

EPD Type

This EPD for several products is based on the worst-case results for the product group (A ASTL Corn L2/200 6m). The raw materials and manufacturing methods are identical. Only the dimensions of the product delivered varies.

PRODUCT INFORMATION

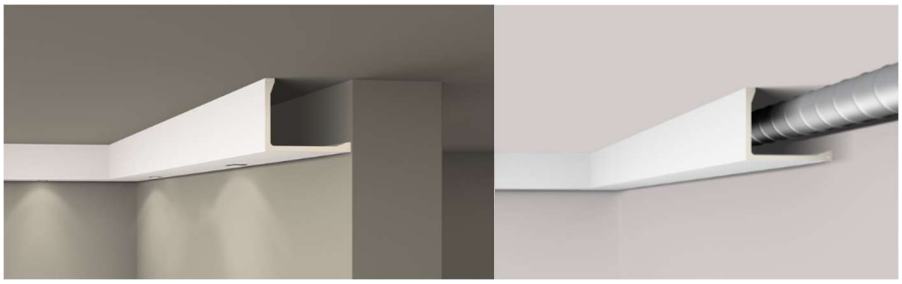
Product name:

L-Profiles ARSTYL®

Product identification:

Brand: NOËL & MARQUET Assortment: L-Profiles ARSTYL®

Visual representation of the product



UN CPC code:

369 (3695)

Product description:

L-PROFILES ARSTYL® are multi-functional profiles for interior application made of polyurethane foam. The L-PROFILES ARSTYL® produce a modern and professional impression in a home or business space. The L-PROFILES ARSTYL® can either be used to accommodate direct lighting, a cornice or to conceal unsightly cracks or large components such as ventilation or wiring. L-PROFILES ARSTYL® are pre-painted. (More information on noelmarquet-tds-arstyl-en-de-fr-nl-a4-2023-05-screen.pdf)

THE ADVANTAGES AT A GLANCE

- Hides wires, cracks and fixtures
- Suitable to accommodate direct lighting
- Lightweight material
- Strong and impact resistant
- Simple to install

Name and location of production site:

NMC sa
Gert-Noël-Strasse
B-4731 Eynatten

Geographical scope:

The raw materials are sourced in Europe, the product is manufactured in Belgium and marketed, used and disposed of in Europe.

CONTENT DECLARATION

The mass (weight) per declared unit:

1,72 kg/m (declared unit) worst-case product.

Product components	Mass (kg per declared unit)	Post-consumer material, mass-% (% per declared unit)	Biogenic material, kg C / declared unit
Polyurethane	1,62	0	0
Plastic film	0,06	0	0
Paint	0,04	0	0
TOTAL	1,72	0	0
Packaging materials	**Mass (kg per declared unit)**	**Mass-% (versus the product)**	**Biogenic material, kg C / declared unit**
Cardboard	0,357	20,8	0,144
LDPE film	0,007	0,4	0
TOTAL	0,364	21,2	0,144

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO_2.

Note: Packaging varies from one item to another; in the table above, the packaging values indicated are a weighted average based on the production quantities of the various items.

REACH-Regulated Substances and Safety Information

In accordance with Article 33(1) of Regulation (EC) No 1907/2006, suppliers of articles containing SVHCs published in the official ECHA Candidate List in concentrations above 0,1% w/w must provide their customers with sufficient information to allow safe use of the article, including at least the name of the substance.

The articles listed in Annex I of this communication do not contain Candidate List substances (latest update 25.06.2025) in concentrations above 0,1% w/w and are therefore not subject to proactive notification. Hence, we do not make a communication under Article 33 of the REACH Regulation. Therefore, we are not required to notify any articles in the ECHA SCIP database. Furthermore, based on current information from our upstream suppliers, we hereby declare that the references provided do not contain any substances listed in Annex XIV, i.e. substances subject to authorization, and that we comply with the restrictions under Annex XVII of the REACH Regulation. (Documents)

Annex I: ARSTYL®

LCA INFORMATION

Declared unit:

1 meter of L-PROFILES ARSTYL® (200 kg/m^3, 1,72 kg/m, height 200 mm, width 250 mm) (used as multi-functional profiles for decoration).

Product lifespan:

50 years

Time representativeness:

The complete reference year used for the plant production data is 2024.

Geographical and temporal representativeness of primary data

The primary data collected relating to the manufacture of the product studied are representative of production in 2024 for the NMC Belgium site. The electricity mix used in the model is a specific process based on the Belgian grid mix, but adapted to the only green electricity produced, since NMC Belgium buys its electricity with a certificate of origin guaranteeing that it is produced entirely from renewable energy sources. This process has a GWP impact of 0,0167 kg CO_2e/kWh (59,5% nuclear, 2,3% hydro, 8,8% photovoltaic, 5,7% biomass, 1,8% biogas and 22% Wind power).

Database(s) and LCA software used:

The LCA and results were calculated using LCA for Expert 10.9 and its content version 2024. Some of the data used comes from the ECOINVENT 3.10 database in the cut-off version.

Description of system boundaries:

Cradle-to-gate with options, modules C1-C4, module D and optional modules A4, A5, and B.

Cut-off Criteria for the Exclusion of Inputs and Outputs:

In compliance with the rules in EN 15804:2012+A2:2019, 6.3.6, the cut-off criteria are 1% of renewable and non-renewable primary energy usage and 1% of the total mass input of a unit process. All known inputs and outputs were included. Data gaps were filled with conservative assumptions and generic

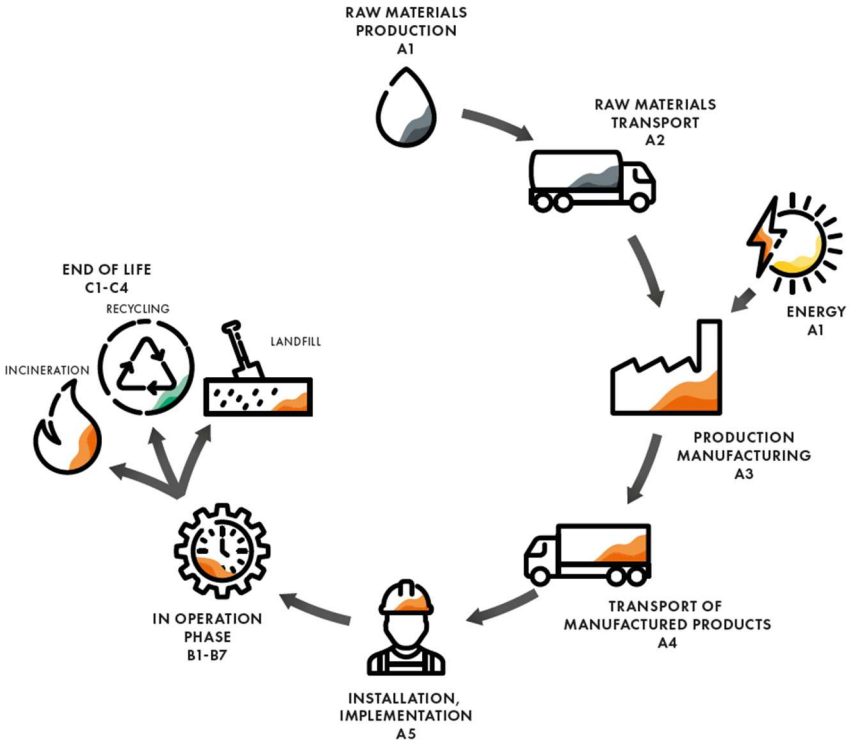
data. The neglected input flows are each below 1% of the total mass or the total impact of primary energy. In total, they constitute less than 5% of the overall mass or 5% of the total energy.
Workshop cleaning, the administrative department, employee transport, manufacturing and heavy maintenance of production equipment have been omitted from the boundaries of the system in accordance with standard EN 15804.

Allocation methods:

In some production processes, non-recyclable pre-consumer waste is generated. This waste is sent to incineration facilities for thermal treatment. In accordance with PCR 2019:14 v2.0.1, the incineration process is included in the life cycle inventory and contributes to the environmental impact of the product. The modelling includes emissions from combustion and, where applicable, energy recovery credits. Data for incineration is based on average values from the Sphera database and reflects local waste management practices. No allocation is applied to this waste flow, as it does not generate secondary materials or economic value. The cut-off end-of-life allocation approach is consistently applied for materials leaving the product system for recycling (in module C3). Site-level processes are allocated to products based on their respective production mass.

No recycled material is used in the production of L-PROFILES ARSTYL®

Process flow diagram:



- Production stage, A1- A3:

This stage considers the extraction, production and transport of raw materials, the production of energy consumed on site, the manufacture of L-PROFILES ARSTYL®, its packaging and storage prior to shipment and delivery. The treatment of waste leaving the plant is a mix of recycling and incineration.

- A1 Raw materials supply

This module takes into account the supply and processing of raw materials and the energies generated upstream of the manufacturing process.

- A2 Transport to manufacturing site

This module takes into account road transport. Vehicles used in the modelling: Euro 0-6 diesel mix freight truck with a loading capacity of 27 tons. The truck loading rate for raw materials has been estimated at 50%.

- A3 Production

L-PROFILES ARSTYL® are manufactured by injecting the various components into a mold prepared with plastic film. A waiting period is required for the components to react before the parts are removed from the mold. The product is then stored for cooling before passing into the paint booth, the final stage being packaging in cardboard boxes.

- A4 transport

This step models the transport of L-PROFILES ARSTYL® from the production site to the building site.

Scenario information	Value	Unit
Vehicle type	Truck-trailer, Euro 0 - 6 mix POCP adapted	n/a
Fuel type	Diesel	n/a
Distance	1544	km
Fill rate mass payload capacity	20	%
Gross vehicle weight	34 - 40t gross weight / 27t payload capacity	t

- A5 Installation

L-PROFILES ARSTYL® are installed by hand and require no special tools apart from a manual mitre saw and glue. Auxiliary inputs have not been included in the lifecycle analysis because they are below the cut-off limit. In addition, as each end-user works differently, it has been decided that it is up to the end-user to calculate the environmental impact of these complementary products for the application, as this is customer-specific data. Based on data from the European Paper Recycling Council, it is assumed that the cardboard packaging delivered to the site is partly recycled, while the remainder is incinerated. The figures used are 79.3% recycled and 20.7% incinerated.

Scenario information	Value	Unit
Auxiliary inputs for installation	Excluded as below cut-off criteria	kg
Water use	Not applicable	m^3
Use of other resources	Not applicable	kg
Quantitative description of energy type (regional mix) and consumption during installation process	Not applicable	kWh or MJ
Material waste on construction site prior to treatment of waste generated by product installation (specified by type)	The 2% loss criterion has been adopted, which is equivalent to 0,0209 kg per m of L-PROFILES ARSTYL® placed.	kg

Outgoing materials (specified by type) generated by waste processing on the construction site, e.g. collection for recycling, energy recovery, disposal (specified by route)	Construction site waste is considered to be sent to landfill (0,034 kg), along with the LDPE packaging film (0,007 kg). Cardboard packaging is considered to be sent to a recycling centre (0,28 kg), and 0,07 kg is sent to incineration.	kg
Direct emissions into ambient air, soil and water	Not applicable	kg

- Life stage in use, B1-B7

Once installed, L-PROFILES ARSTYL® requires no maintenance or repair. It is dismantled at the end of the building's life or removed when no longer required. In addition, the product undergoes no modification or degradation throughout its entire life cycle. For these reasons, there is no impact on modules B1 to B7.

- End-of-life stage, C1-C4

- C1 Deconstruction, demolition

As with product installation, disassembly is manual and requires no special equipment other than a screwdriver. Consequently, there is no impact associated with this module.

- C2 Transport

The choice of transport for the end-of-life stage was that of a truck with a Euro 0-6 diesel mix engine and a loading capacity of 27 tons. Diesel consumption of 38 liters per 100 km. The average distance between the dismantling site and the treatment center (incinerator and landfill) was estimated at 50 km.

- C3 Treatment of waste for reuse, recovery and/or recycling and C4 disposal.

L-PROFILES ARSTYL® end of life has been modelled and based on a study of the treatment of plastic waste from the construction industry in Europe by Plasticseurope.org. The ratio used according to this study for Polyurethane plastics is 71% disposed of in an incinerator with energy recovery, and 29% landfilled as non-hazardous waste.

Scenario information	Value and Unit
Collecting process	Manual disassembly
Type-specified recovery system	1,219 kg foam for energy recovery
Disposal specified by type	0,498 kg for final disposal (Landfill)
Scenario assumptions	Transport over 50 km

- Module D

A benefit beyond the boundaries of the system is the recovery of energy generated from the incineration of waste at end-of-life In the LCA end-of-life calculation, there is no gain for landfill; the gains in energy recovered during incineration and the avoidance of the use of new materials during recycling have been taken into account by the Sphera software and are accounted for in module D.

For recycling, burdens associated with the recycling process are included, and quality adjustment factors are applied according to PCR 2019:14 v2.0.1. Net scrap is calculated as output scrap minus input scrap. For incineration, the energy content of the material is considered, and efficiency factors for heat and electricity recovery are applied. Datasets for avoided products (e.g., virgin PU, or paper, electricity and heat) are taken from the GaBi database.

More information:

Name and contact information of LCA practitioner: Alain Baltus NMC sa Gert-Noël-Strasse B-4731 Eynatten info@nmc.eu

L-PROFILES ARSTYL® is manufactured at NMC's Belgian site. For the LCA calculation, all elementary input processes as well as all energy and water inputs and waste outputs were considered. This EPD only includes environmental impacts linked to the product itself, such as material losses and packaging disposal.

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	EU 27	EU 27	BE	EU 27	EU 27	EU 27	EU 27	EU 27	EU 27	EU 27	EU 27	EU 27	EU 27	EU 27	EU 27	EU 27	EU 27
Share of specific data	1,8%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	-65,3%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	N/A (single site)			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: X = Modules declared, ND = Modules not declared

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

Overview of Data Quality and Primary Data Contribution (A1–A3)

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
Polyol	Database	LCA for Expert V 2025.1 and Ecoinvent 3.10	2024	Secondary data	0%
Isocyanate	Database	LCA for Expert V 2025.1	2024	Secondary data	0%
Plastic packaging in municipal waste incineration plant	Company data	LCA for Expert V 2025.1	2024	Secondary data	0%
BE: Electricity Green	Company data	LCA for Expert V 2025.1	2021	Primary data	0,7%
BE: Electricity from photovoltaic Sphera	Company data	LCA for Expert V 2025.1	2021	Primary data	0,2%
BE: Thermal energy from natural gas Sphera	Company data	LCA for Expert V 2025.1	2021	Primary data	0,9%
Total share of primary data, of GWP-GHG results for A1-A3					1,8%

The share of primary data for modules A1-A3 is very low (1,8%) because most raw materials, such as polyol and isocyanate, are modeled using generic databases.

Data Quality Assessment Summary

In accordance with the requirements of Section A.5.4 of the GPI 5.0, a data quality assessment was conducted for all datasets used in the life cycle assessment (LCA) of the product. All data are secondary, originating from recognized LCA databases. At present, obtaining primary data directly from suppliers remains very challenging.
The overall assessment of data quality yielded the following average scores (1 = very good, 5 = very poor):

Temporal representativeness: 1,9
Geographical representativeness: 1,6
Technological representativeness: 1,9

These scores reflect the current limitations in data availability and supplier access. Nevertheless, the selected datasets are considered sufficiently representative for the intended use of the EPD and comply with the transparency requirements of the PCR and GPI.

ENVIRONMENTAL PERFORMANCE

LCA results of the products - main environmental performance results

Mandatory impact category indicators according to EN 15804

For the characterization factors (CF) to be used, EN 15804 refers to the "EN 15804 reference package" available at the JRC webpage. In February 2023, this reference package was updated to be based on the EF 3.1 package for CFs to be used in the PEF framework. For this EPD, the EN 15804 reference package based on EF 3.1 is being used.

Results per Declared unit 1-meter L-PROFILES ARSTYL®

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	8,14E+00	4,67E-01	6,36E-01	0,00E+00	0,00E+00	7,90E-03	2,68E+00	1,52E-02	-9,90E-01
GWP-fossil	kg CO_2 eq.	8,66E+00	4,63E-01	1,08E-01	0,00E+00	0,00E+00	7,82E-03	2,68E+00	1,51E-02	-9,89E-01
GWP-biogenic	kg CO_2 eq.	-5,28E-01	0,00E+00	5,28E-01	0,00E+00	0,00E+00	0,00E+00	1,80E-04	0,00E+00	0,00E+00
GWP-luluc	kg CO_2 eq.	8,37E-03	4,73E-03	1,29E-05	0,00E+00	0,00E+00	8,01E-05	3,35E-05	4,15E-05	-1,36E-03
ODP	kg CFC 11 eq.	7,35E-09	7,63E-14	3,10E-14	0,00E+00	0,00E+00	1,29E-15	2,50E-13	5,17E-14	-9,29E-12
AP	mol H^+ eq.	1,23E-02	7,13E-04	3,53E-05	0,00E+00	0,00E+00	1,13E-05	1,59E-03	9,02E-05	-1,17E-03
EP-freshwater	kg P eq.	8,50E-04	1,24E-06	4,94E-07	0,00E+00	0,00E+00	2,10E-08	3,84E-08	8,45E-06	-9,03E-07
EP-marine	kg N eq.	4,02E-03	2,98E-04	1,68E-05	0,00E+00	0,00E+00	4,62E-06	7,70E-04	1,95E-05	-3,37E-04
EP-terrestrial	mol N eq.	4,28E-02	3,11E-03	1,41E-04	0,00E+00	0,00E+00	4,81E-05	8,86E-03	2,13E-04	-3,77E-03
POCP	kg NMVOC eq.	1,50E-02	6,53E-04	5,73E-05	0,00E+00	0,00E+00	1,03E-05	1,98E-03	6,18E-05	-9,16E-04
ADP-minerals&metals*	kg Sb eq.	5,09E-06	3,06E-08	4,28E-10	0,00E+00	0,00E+00	5,18E-10	3,06E-09	1,03E-09	-9,77E-08
ADP-fossil*	MJ	1,92E+02	5,89E+00	1,10E-01	0,00E+00	0,00E+00	9,98E-02	7,10E-01	2,51E-01	-1,75E+01
WDP*	m^3	5,61E-01	2,10E-03	1,01E-02	0,00E+00	0,00E+00	3,56E-05	2,64E-01	1,86E-03	-1,03E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption									

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

** Disclaimer 1: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

Disclaimer 2: The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

Additional mandatory and voluntary impact category indicators

Results per Declared unit 1-meter L-PROFILES ARSTYL®										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[1]	kg CO_2 eq.	8,66E+00	4,67E-01	1,08E-01	0,00E+00	0,00E+00	7,90E-03	2,68E+00	1,52E-02	-9,90E-01

Resource use indicators

Results per Declared unit 1-meter L-PROFILES ARSTYL®										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	3,62E+01	4,44E-01	6,09E+00	0,00E+00	0,00E+00	7,52E-03	1,40E-01	4,18E-02	-5,69E+00
PERM	MJ	6,07E+00	0,00E+00	-6,07E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,23E+01	4,44E-01	1,81E-02	0,00E+00	0,00E+00	7,52E-03	1,40E-01	4,18E-02	-5,69E+00
PENRE	MJ	1,41E+02	5,89E+00	1,10E-01	0,00E+00	0,00E+00	9,98E-02	7,10E-01	2,51E-01	-1,75E+01
PENRM	MJ	5,08E+01	0,00E+00	-6,79E+00	0,00E+00	0,00E+00	0,00E+00	-4,40E+01	0,00E+00	0,00E+00
PENRT	MJ	1,92E+02	5,89E+00	-6,68E+00	0,00E+00	0,00E+00	9,98E-02	-4,33E+01	2,51E-01	-1,75E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m^3	4,97E-02	2,19E-04	2,42E-04	0,00E+00	0,00E+00	3,72E-06	6,21E-03	5,47E-05	-4,43E-03
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water									

The option for separating primary energy use into energy used as a raw material and energy used as an energy carrier is option A of PCR 2019:14.

[1] This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO_2 is set to zero.

Waste indicators

Results per Declared unit 1-meter L-PROFILES ARSTYL®										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	8,07E-08	2,36E-10	3,29E-11	0,00E+00	0,00E+00	4,00E-12	2,84E-10	5,61E-11	-1,10E-08
Non-hazardous waste disposed	kg	3,32E-01	8,22E-04	5,48E-02	0,00E+00	0,00E+00	1,39E-05	1,35E-02	4,99E-01	-8,70E-03
Radioactive waste disposed	kg	8,82E-03	1,11E-05	2,34E-06	0,00E+00	0,00E+00	1,88E-07	2,73E-05	3,61E-06	-1,31E-03

Output flow indicators

Results per Declared unit 1-meter L-PROFILES ARSTYL®										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	0,00E+00	0,00E+00	2,83E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	7,39E-02	0,00E+00	0,00E+00	0,00E+00	1,22E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Additional environmental impact indicators

Results per Declared unit 1-meter L-PROFILES ARSTYL®										
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1-B7**	**C1**	**C2**	**C3**	**C4**	**D**
Particulate matter	Disease incidences	1,15E-07	6,21E-09	3,73E-10	0,00E+00	0,00E+00	1,03E-10	4,42E-09	9,28E-10	-9,51E-09
Ionising radiation, human health	kBq U235 eq.	6,94E-01	1,60E-03	3,25E-04	0,00E+00	0,00E+00	2,70E-05	4,27E-03	4,85E-04	-2,17E-01
Ecotoxicity, freshwater	CTUe	9,96E+01	7,66E+00	8,07E-02	0,00E+00	0,00E+00	1,30E-01	1,94E-01	5,74E-01	-1,54E+00

Human toxicity, cancer	CTUh	2,69E-09	1,03E-10	2,45E-12	0,00E+00	0,00E+00	1,75E-12	1,71E-11	7,89E-12	-1,79E-10
Human toxicity, non-cancer	CTUh	8,39E-08	5,78E-09	2,28E-10	0,00E+00	0,00E+00	9,78E-11	1,28E-10	1,40E-10	-2,95E-09
Land Use	-	3,21E+01	2,60E+00	1,64E-02	0,00E+00	0,00E+00	4,41E-02	1,50E-01	3,87E-02	-3,34E+00

Disclaimer 1 – for the indicator "Potential Human exposure efficiency relative to U235". This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure, or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators "abiotic depletion potential for non-fossil resources", "abiotic depletion potential for fossil resources", "water (user) deprivation potential, deprivation-weighted water consumption", "potential comparative toxic unit for ecosystems", "potential comparative toxic unit for humans – cancerogenic", "Potential comparative toxic unit for humans - not cancerogenic", "potential soil quality index". The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

Complementary End-of-Life Scenarios (100%)

For the additional end-of-life scenarios (100% incineration, 100% landfill), only the mandatory impact indicators defined by EN 15804+A2 are reported. Note: Currently, recycling options remain very limited to recycle this type of product. In practice, such products are mostly sent to landfill or incineration at end-of-life.

Results per Declared Unit 1 m of L-PROFILES ARSTYL® End of life 100% Incineration

Indicator	Unit	C2	C3	C4	D
GWP-total	kg CO_2 eq.	7,90E-03	3,79E+00	0,00E+00	-1,40E+00
GWP-fossil	kg CO_2 eq.	7,82E-03	3,79E+00	0,00E+00	-1,40E+00
GWP-biogenic	kg CO_2 eq.	0,00E+00	2,54E-04	0,00E+00	0,00E+00
GWP-luluc	kg CO_2 eq.	8,01E-05	4,74E-05	0,00E+00	-1,92E-03
ODP	kg CFC 11 eq.	1,29E-15	3,53E-13	0,00E+00	-1,31E-11
AP	mol H^+ eq.	1,13E-05	2,24E-03	0,00E+00	-1,65E-03
EP-freshwater	kg P eq.	2,10E-08	5,42E-08	0,00E+00	-1,28E-06
EP-marine	kg N eq.	4,62E-06	1,09E-03	0,00E+00	-4,76E-04
EP-terrestrial	mol N eq.	4,81E-05	1,25E-02	0,00E+00	-5,32E-03
POCP	kg NMVOC eq.	1,03E-05	2,79E-03	0,00E+00	-1,29E-03
ADP-minerals&metals*	kg Sb eq.	5,18E-10	4,32E-09	0,00E+00	-1,38E-07
ADP-fossil*	MJ	9,98E-02	1,00E+00	0,00E+00	-2,47E+01
WDP*	m^3	3,56E-05	3,73E-01	0,00E+00	-1,45E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption				

Results per Declared Unit 1 m of L-PROFILES ARSTYL® End of life 100% Landfill					
Indicator	**Unit**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	7,90E-03	0,00E+00	5,19E-02	0,00E+00
GWP-fossil	kg CO_2 eq.	7,82E-03	0,00E+00	5,18E-02	0,00E+00
GWP-biogenic	kg CO_2 eq.	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GWP-luluc	kg CO_2 eq.	8,01E-05	0,00E+00	1,42E-04	0,00E+00
ODP	kg CFC 11 eq.	1,29E-15	0,00E+00	1,77E-13	0,00E+00
AP	mol H^+ eq.	1,13E-05	0,00E+00	3,09E-04	0,00E+00
EP-freshwater	kg P eq.	2,10E-08	0,00E+00	2,89E-05	0,00E+00
EP-marine	kg N eq.	4,62E-06	0,00E+00	6,69E-05	0,00E+00
EP-terrestrial	mol N eq.	4,81E-05	0,00E+00	7,30E-04	0,00E+00
POCP	kg NMVOC eq.	1,03E-05	0,00E+00	2,12E-04	0,00E+00
ADP-minerals&metals*	kg Sb eq.	5,18E-10	0,00E+00	3,52E-09	0,00E+00
ADP-fossil*	MJ	9,98E-02	0,00E+00	8,58E-01	0,00E+00
WDP*	m^3	3,56E-05	0,00E+00	6,39E-03	0,00E+00
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption				

Additional environmental information

L-PROFILES ARSTYL® has a low density, which means it requires few raw materials to manufacture.

NMC Belgium are certified ISO 9001 and ISO 14001.

NMC has defined its sustainability strategy, keeping a foothold in the present and looking to the future. NMC has thus formalized a new set of guidelines that forms its group-wide sustainability strategy, embedded in the global business strategy. Sustainability goals have therefore been set for 2030, with three focus areas being circularity, decarbonisation, and empowerment.

https://nmc.eu/en/downloads/corporate-identity

NMC Belgium is certified according to the system ISCC PLUS and POLYCERT demonstrating the company's commitment to reducing its impact on the environment and using more circular raw materials.

To continue to reduce the environmental impact of the ARSTYL® L-PROFILES we need to continue to increase our energy efficiency and the switch to more and more renewable energies.

NMC are in addition actively looking for more sustainable sourcing and raw materials as well as more local suppliers to avoid long-distance transport as much as possible.

L-PROFILES ARSTYL® reference included in this EPD and Conversion factors.

Conversion factors: To find out the values of the different impact factors per meter for the different references, multiply the values in the results table by the conversion factor for the desired reference in the table below.

Reference list of ARSTYL® L-PROFILES	gr/m	Height (mm)	Width (mm)	Length (mm)	Conversion factor
A ASTL Corn L1/200 16m	819	150	150	2000	0,4768
A ASTL Corn L2/200 6m	1717	200	250	2000	1,0000
A ASTL Corn L4/200 22m	595	100	100	2000	0,3465
A ASTL Corn L5/200 6m	1239	200	200	2000	0,7216

ABBREVIATIONS

Abbreviation	Definition
General Abbreviations	
EN	European Norm (Standard)
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CPC	Central product classification
GHS	Globally harmonized system of classification and labelling of chemicals
GRI	Global Reporting Initiative
SVHC	Substances of Very High Concern
ND	Not Declared
JRC	Joint Research Centre (European Commission)
GWP	Global Warming Potential
GHG	Greenhouse gas
CF	Characterization factors

References

General Program Instructions for the International EPD® System. Version 5.0.

Product category rules (PCR):
PCR 2019:14 v2.0. Construction Product PCR (EN 15804: A2)

EN 15804
EN 15804:2012-04 + A2 2019: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

ISO 14025
DIN EN ISO 14025:2011-10: Environmental labels and declarations — Type III environmental declarations — Principles and procedures

ISO 14040:2006
ISO 14040:2006: Environmental management — Life cycle assessment — Principles and framework

ISO 14044:2006
ISO 14044:2006: Environmental management — Life cycle assessment — Requirements and guidelines

CEN/TR 15941:2010
CEN/TR 15941:2010: Sustainability of construction works - Environmental product declarations - Methodology for selection and use of generic data.

ISO 9001:2015
Quality management systems.

ISO 14001:2015
Environmental management systems.

EN 1602: 2013
EN 1602: 2013: Thermal insulating products for building applications. Determination of the apparent density

ISO 845:2006
ISO 845:2006: Cellular plastics and rubbers — Determination of apparent density

ISO 2896:2001
ISO 2896:2001: Rigid cellular plastics — Determination of water absorption

ISO 1798:2008
ISO 1798:2008: Flexible cellular polymeric materials — Determination of tensile strength and elongation at break

Sphera LCA for Experts
Sphera LCA for Experts 10.9 (GaBi) LCA for Experts Software-System and Database for Life Cycle Engineering Copyright © 1992-2024 Sphera Solutions Gmbh Version: 10.9.0.20 DB Schema 8007

Sphera
Sphera Solutions Gmbh. LCA for Experts 10 LCI documentation. GaBi Databases (sphera.com) + ecoinvent integrated v3.10 database Stuttgart, Echterdingen: Sphera Solutions Gmbh.

Eurostat
European Statistics: Recovery rates for packaging wastepaper and cardboard packaging for the European Union 27 countries 2014 http://ec.europa.eu/eurostat/home

CEN/TS 16516:2013
CEN TS 16516/, AgBB/, /ISO 16000-3/, /ISO 16000-6/, /ISO16000-9/, /ISO 16000-11/ Construction products. Assessment of release of dangerous substances. Determination of emissions into indoor air

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EPD®

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