

Environmental Product Declaration



THE INTERNATIONAL EPD® SYSTEM



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

EPD of multiple products, based on the average results of the product group :

NOMATEC® BACKER ROD HOLLOW & FULL

from

NMC



SOLUTIONS
FOR INDUSTRIES

Programme:

Programme operator:

EPD registration number:

Publication date:

Valid until:

The International EPD® System, www.environdec.com

EPD International AB

EPD-IES-0015267

2024-07-10

2029-07-09

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at 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:	info@environdec.com

Accountabilities for PCR, LCA and independent, third-party verification

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 1.3.4 CONSTRUCTION PRODUCTS; EN 16783:2024 Thermal insulation products C-PCR-005 (TO PCR 2024:14)

PCR review was conducted by: The Technical Committee of the International EPD® System. The review panel may be contacted via info@environdec.com. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact

Life Cycle Assessment (LCA)

NMC sa

Gert-Noël-Strasse 4731 Eynatten Belgium
www.nmc.eu



Third-party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

☒ EPD verification by individual verifier

Third-party verifier: Matthew Fishwick, Fishwick Environmental Ltd

Approved by: The 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 registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same 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); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD:

NMC sa

Contact:

NMC sa
Gert-Noël-Strasse
4731 Eynatten
Belgium
info@nmc.eu

Description of the organisation:

NMC is a leading, growth-oriented international company specializing in synthetic foams. For 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 three production site are certified ISO 9001:2015. Swedish and Belgian Site are also ISO 14001:2015 certified.

Name and location of production site(s):

NMC sa
Gert-Noël-Strasse
B-4731 Eynatten

NMC Sverige AB
Stenstorpsvägen 35
SE-305 75 Getinge

NMC (uk) ltd.
Tafarnaubach Ind Est
UK-NP22 3AA Tredegar, South Wales

EPD Type

This EPD is an EPD of multiple products based on average results. There is no difference between the different impact factors per m3 of products within each group or manufacturing site, as the raw materials and manufacturing methods are identical. To find out the values of the different impact factors per meter and reference refer to the conversion table on page 13 of this document.

Product information

Product name:

NOMATEC® BACKER ROD HOLLOW & FULL

Product description:

NOMATEC® Backer Rod Hollow & Full round profiles are manufactured from closed-cell polyethylene foam and are used as backing material for elastomeric and other cold-applied sealants. They are inserted into a joint to control the sealant depth and act as bond-breakers, without adhering to the sealant. NOMATEC® BACKER ROD HOLLOW & FULL are available in full or pipe form, with external diameters ranging from 6 mm for the smallest to 60 mm for the largest. NOMATEC® BACKER ROD HOLLOW & FULL are fully recyclable and are sold in cardboard packaging or plastic bags.

PRODUCT FEATURES

- › Closed cell PE foam
- › Density 22 kg/m³ ± 5 kg/m³
- › Water absorption <1 vol.% according to DIN 52459
- › Fire class: Euroclasse E (EN 13501-1)
- › Packaging: coils, without spool, in cardboard boxes or lengths in cardboard boxes
- › Colour: grey



UN CPC code:

363

Geographical scope:

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

LCA information

Declared unit:

1 m³ (22 kg/m³ +/-5)

Reference service life:

50 years

Database(s) and LCA software used:

The LCA and results were calculated using LCA for Expert 10.7 and its content version 2023. Some of the data used comes from the Ecoinvent 3.9 database in the cut-off version.

Description of system boundaries:

Cradle to gate with options modules A1 to A5, C2, C3, C4 and module D.

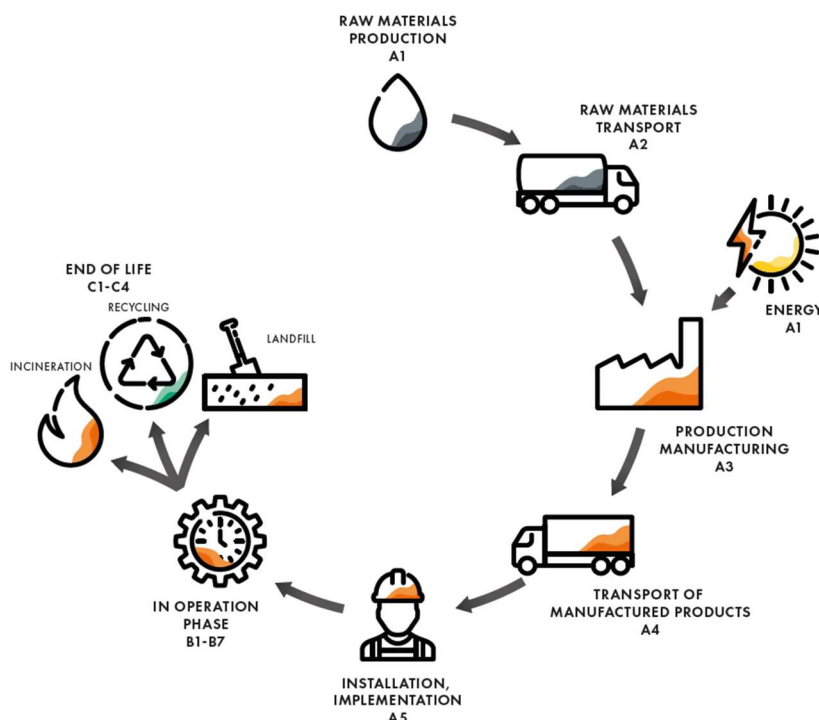
Geographical and temporal representativeness of primary data

The primary data collected relating to the manufacture of the product studied are representative of production in 2023 for the NMC sa Belgium, Sweden and England site. The electricity mix used for England is "GB: electricity, low voltage, residual mix Ecoinvent 3.9.1" with a GWP impact of 0,448 kg CO₂e/kWh (18,6% Nuclear, 10,7% Wind, 1,8% Biomass, 49,1% Gas 14,3% Hard coal, 1,5% Oil), in Sweden, a specific process adapted to the only green electricity produced that has been used with a GWP impact of 0,0134 kg CO₂e/kWh (35% Nuclear, 20% Hydro power, 20% PV, 25% Biomass). Same principle to Belgium was applied with a GWP of 0,0137 kg CO₂e/kWh (69% Nuclear, 5,2% Biomass, 15,5% Wind power, 6,8% PV, 1,9% hydro power, 1,6% Biogas). Belgium and Sweden purchase their electricity guaranteed by certificate of origin as being produced entirely from renewable energy sources.

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.

System 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 NOMATEC® BACKER ROD HOLLOW & FULL, 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 both road and sea 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

The manufacture of NOMATEC® BACKER ROD HOLLOW & FULL involves incorporating the formulation ingredients into an extruder, adding a foaming agent, mixing, heating and then extruding the

mixture through a die where foaming takes place. The product is then water-cooled before being cut to size, packaged, and stored.

- A4 transport

This step models the transport of NOMATEC® BACKER ROD HOLLOW & FULL from the production site to the building site, in most cases via an intermediary.

Scenario information	Value	Unit
Vehicle type	Truck-trailer, Euro 0 - 6 mix POCP adapted	
Fuel type	Diesel	
Distance	435	km
Fill rate mass payload capacity	10	%
Gross vehicle weight	34 - 40t gross weight / 27t payload capacity	t

- A5 Installation

NOMATEC® BACKER ROD HOLLOW & FULL is installed by hand and requires no special tools other than a knife. Packaging cartons brought to the site are estimated to be recycled, plastic bags are estimated sent to a waste incineration centre. Auxiliary inputs have not been included in the life-cycle analysis.

Scenario information	Value	Unit
Auxiliary inputs for installation	Not concerned	kg
Water use	Not concerned	m ³
Use of other resources	Not concerned	kg
Quantitative description of energy type (regional mix) and consumption during installation process	Not concerned	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 as recommended in EN 16783, which is equivalent to 0,44 kg per m ³ of NOMATEC® BACKER ROD HOLLOW & FULL 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 landfill, while cardboard packaging is considered recycled.	kg
Direct emissions into ambient air, soil and water	Not concerned	kg

- Life stage in use, B1-B7

Once installed, NOMATEC® BACKER ROD HOLLOW & FULL requires no maintenance or repair. It is dismantled at the end of the building's life. 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, dismantling is carried out manually and requires no special equipment other than a knife. Consequently, there is no impact associated with this module.

- C2 Transport

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

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

NOMATEC® BACKER ROD HOLLOW & FULL is fully recyclable. However, end-of-life has been modelled and based on a study of plastic construction waste processing in Europe by Plasticseurope.org. The ratio used in this study for low-density polyethylene plastics is 27% sent for mechanical recycling, 51% disposed of in incinerators with energy recovery and 22% landfilled as non-hazardous waste.

Scenario information	Value and Unit
Collecting process	Manual disassembly
Type-specified recovery system	5,94 kg foam for recycling 11,22 kg foam for energy recovery
Elimination spécifiée par type	4,84 kg for final disposal (Landfill)
Scenario assumptions	Transport over 50 km

More information:

More product details : [NMC NOMATEC® Backer-rod TDS A4 EN-.pdf \(nmc-nomafoam.com\)](#).

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

NOMATEC® BACKER ROD HOLLOW & FULL are manufactured at 3 production sites. The life cycle analysis was carried out based on the weighted average of the production volumes of all the references for each production site separately. These three results were then weighted according to the volumes produced at each production site to obtain the result for 1 m3 of NOMATEC® BACKER ROD HOLLOW & FULL foam. For the LCA calculation, no cut-off criteria were applied, and 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	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X
Geography	EU	EU	SE/BE/UK	EU	EU	-	-	-	-	-	-	-	-	EU	EU	EU	EU
Specific data used	<4%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Variation – sites	BE site : -1,8% SE site : + 0,1% UK site : + 0,7%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Content information (for 1 m³ foam)

Product components	Weight for 1m ³ in kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Polymer (LDPE)	17,7	0	0
Various additives (pigments, stabilizers, processing agent...)	1,1	0	0
Foaming agent	3,3	0	0
TOTAL	22	0	0
Packaging materials	Weight for 1m ³ in kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/m ³
Cardboard (Article 3014644)	12,2	55,5	4,9
HDPE part (Article 3000148)	0,03	0,15	0
Plastic film (Article 3014648)	0,08	0,35	0
Palette (Article 3014666)	0,029	0,13	0,007
TOTAL	12,4	56,1	4,907

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 at the different sites.

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per declared unit
---	---------------	----------------	-----------------------------------

Under the European Chemicals Regulation REACH, manufacturers, importers, and downstream users must register their chemicals and are responsible for their safe use. NMC S.A. uses only verifiably registered and approved substances in its production. NOMATEC[®] BACKER ROD HOLLOW & FULL does not contain any substances of very high concern (SVHC).

Results of the environmental performance indicators

The result given is the weighted average based on the quantities produced at the three production sites.

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 m³ of NOMATEC® BACKER ROD HOLLOW & FULL

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	6,22E+01	8,23E-01	1,65E+00	0,00E+00	0,00E+00	1,63E-01	3,68E+01	3,32E-01	-2,50E+01
GWP-biogenic	kg CO ₂ eq.	-1,86E+01	-1,11E-02	2,33E+01	0,00E+00	0,00E+00	-2,38E-03	1,18E-02	-4,09E-03	-1,15E-01
GWP-luluc	kg CO ₂ eq.	8,51E-02	7,44E-03	2,71E-04	0,00E+00	0,00E+00	1,50E-03	1,92E-04	2,74E-04	-1,76E-03
GWP-total	kg CO ₂ eq.	4,37E+01	8,20E-01	2,49E+01	0,00E+00	0,00E+00	1,62E-01	3,68E+01	3,28E-01	-2,52E+01
ODP	kg CFC 11 eq.	3,65E-08	1,04E-13	7,73E-13	0,00E+00	0,00E+00	2,10E-14	2,04E-11	5,59E-13	-1,55E-10
AP	mol H ⁺ eq.	1,27E-01	9,78E-04	1,72E-03	0,00E+00	0,00E+00	1,98E-04	5,96E-03	9,98E-04	-3,89E-02
EP-freshwater	kg P eq.	2,35E-04	2,94E-06	3,52E-05	0,00E+00	0,00E+00	5,91E-07	1,44E-05	6,41E-05	-3,92E-05
EP-marine	kg N eq.	3,94E-02	3,33E-04	9,79E-04	0,00E+00	0,00E+00	6,79E-05	1,37E-03	2,29E-04	-1,10E-02
EP-terrestrial	mol N eq.	4,17E-01	3,93E-03	6,42E-03	0,00E+00	0,00E+00	7,97E-04	2,30E-02	2,51E-03	-1,18E-01
POCP	kg NMVOC eq.	2,47E+00	1,00E-03	3,46E-03	0,00E+00	0,00E+00	1,73E-04	3,86E-03	7,27E-04	-3,67E-02
ADP-minerals&metals*	kg Sb eq.	1,54E-05	5,32E-08	1,03E-08	0,00E+00	0,00E+00	1,07E-08	1,75E-07	8,80E-09	-1,62E-06
ADP-fossil*	MJ	2,31E+03	1,09E+01	5,12E+00	0,00E+00	0,00E+00	2,20E+00	2,84E+01	4,97E+00	-6,64E+02
WDP*	m ³	1,24E+01	9,70E-03	1,50E-01	0,00E+00	0,00E+00	1,95E-03	3,52E+00	-4,70E-03	-3,45E+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

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: It is recommended to always use the results of the modules, taking into consideration module C.

Additional mandatory and voluntary impact category indicators

Results per declared unit 1 m³ of NOMATEC® BACKER ROD HOLLOW & FULL

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	6,23E+01	8,31E-01	1,65E+00	0,00E+00	0,00E+00	1,64E-01	3,68E+01	3,32E-01	-2,50E+01

Resource use indicators

Results per declared unit 1 m³ of NOMATEC® BACKER ROD HOLLOW & FULL

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
PERE	MJ	2,69E+02	7,96E-01	5,52E-01	0,00E+00	0,00E+00	1,60E-01	1,39E+01	4,48E-01	-1,06E+02
PERM	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
PERT	MJ	2,69E+02	7,96E-01	5,52E-01	0,00E+00	0,00E+00	1,60E-01	1,39E+01	4,48E-01	-1,06E+02
PENRE	MJ	1,54E+03	1,10E+01	5,12E+00	0,00E+00	0,00E+00	2,21E+00	2,84E+01	4,97E+00	-6,65E+02
PENRM	MJ	7,89E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	2,33E+03	1,10E+01	5,12E+00	0,00E+00	0,00E+00	2,21E+00	2,84E+01	4,97E+00	-6,65E+02
SM	kg	1,22E+01	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	4,14E-01	8,72E-04	3,70E-03	0,00E+00	0,00E+00	1,76E-04	8,74E-02	4,90E-05	-1,23E-01

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									
----------	--	--	--	--	--	--	--	--	--	--

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 CO₂ is set to zero.

Waste indicators

Results per declared unit 1 m³ of NOMATEC® BACKER ROD HOLLOW & FULL

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	1,90E-04	3,40E-11	3,85E-10	0,00E+00	0,00E+00	6,85E-12	-1,13E-09	4,19E-10	-2,90E-08
Non-hazardous waste disposed	kg	8,99E-01	1,67E-03	3,36E+00	0,00E+00	0,00E+00	3,37E-04	7,61E-01	4,82E+00	-2,46E-01
Radioactive waste disposed	kg	6,62E-02	2,05E-05	7,51E-05	0,00E+00	0,00E+00	4,14E-06	3,64E-03	5,89E-05	-2,80E-02

Output flow indicators

Results per declared unit 1 m³ of NOMATEC® BACKER ROD HOLLOW & FULL

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	7,72E+00	0,00E+00	0,00E+00	0,00E+00	5,94E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,12E+01	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	7,50E+01	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	1,33E+02	0,00E+00	0,00E+00

Additional environmental impact indicators

Results per declared unit 1 m³ of NOMATEC® BACKER ROD HOLLOW & FULL

Indicator	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Particulate matter	Diseases incidence	1,31E-06	7,37E-09	1,69E-08	0,00E+00	0,00E+00	1,40E-09	4,15E-08	9,68E-09	-3,03E-07
Ionising radiation, human health	kBq U235 eq.	8,35E+00	3,06E-03	1,09E-02	0,00E+00	0,00E+00	6,17E-04	6,04E-01	8,70E-03	-4,65E+00
Ecotoxicity, freshwater	CTUe	1,18E+03	7,83E+00	3,61E+00	0,00E+00	0,00E+00	1,58E+00	8,31E+00	4,24E+00	-2,31E+02
Human toxicity, cancer	CTUh	2,79E-08	1,59E-10	2,13E-10	0,00E+00	0,00E+00	3,20E-11	6,04E-10	2,18E-10	-7,61E-09

Human toxicity, non-cancer	CTUh	8,28E-07	7,07E-09	2,42E-08	0,00E+00	0,00E+00	1,42E-09	1,14E-08	1,74E-08	-2,20E-07
Land Use	-	1,98E+02	4,57E+00	5,35E-01	0,00E+00	0,00E+00	9,21E-01	9,75E+00	4,30E-01	-6,98E+01

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.

Additional environmental information

NOMATEC® BACKER ROD HOLLOW & FULL is made from low-density polyethylene. It is therefore fully recyclable and can be recycled when it reaches the end of its life. In the construction sector, 27% of LDPE used in buildings is recycled, and the aim should be to increase this percentage.

NMC Belgium and Sweden are certified ISO 9001 and ISO 14001. 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. NMC UK is ISO 9001 and has also obtained POLYCERT certification. <https://nmc.eu/en/downloads/certificates>

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>

In order to continue to reduce the environmental impact of the NOMATEC® BACKER ROD HOLLOW & FULL we need to continue to increase our energy efficiency and the switch to more and more renewable energies.

In the recent past, NMC greatly increased the number of photovoltaic panels and has installed a cogeneration system. NMC is looking for further sources of renewable energy. In addition, all the acquired electricity is coming from renewable sources.

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.

Conversion factors table

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

Type	External diameter mm	Internal diameter mm	Gr/m	Conversion factor
F 6 mm	6 +1/0	-	0,6	0,000028
F 8 mm	8 +1/0	-	1,1	0,000050
F 10 mm	10 +1/0	-	1,7	0,000079
F 13 mm	13 +1/0	-	2,9	0,000133
F 15 mm	15 +1/-1	-	3,9	0,000177
F 20 mm	20 +1/-1	-	6,9	0,000314

F 25 mm	25 +1/-1	-	10,8	0,000491
F 30 mm	30 +1/-1	-	15,6	0,000707
F 40 mm	40 +1/-1	-	27,6	0,001257
F 50 mm	50 +1/-1	-	43,2	0,001963
F 60 mm	60 +1/-1	-	62,2	0,002827
**H 15-16 mm	16 +1/-1	5 +2/-2	4,0	0,000181
H 20 mm	20 +1/-1	6 +2/-2	6,3	0,000286
H 24-25 mm	24 +1/-1	8 +2/-2	8,8	0,000402
H 30 mm	30 +1/-1	9 +2/-2	14,2	0,000643
H 35 mm	35 +1/-1	11 +2/-2	19,1	0,000867
H 40 mm	40 +1/-1	13 +2/-2	24,7	0,001124
H 50 mm	50 +1/-1	16 +2/-2	38,8	0,001762

** F = Full, H = Hollow

References

General Program Instructions of the International EPD® System. Version 4.0.

Product category rules (PCR): PCR 2019:14 v1.3.4. Construction products (EN 15804:A2) Version 1.0
c-PCR-005 Thermal insulation products (EN 16783: 2024) Version: 2024-04-30

EN 15804

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

EN 16783

EN 16783:2024-04: Thermal insulation products - Environmental Product Declarations (EPD) - Product Category Rules (PCR) complementary to EN 15804 for factory made and in-situ formed 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 13501-1

EN 13501-1: 2007+A1: 2013 Fire classification of construction products and building elements. Classification using test data from reaction to fire tests.

DIN 52459:2013-08

Testing of building sealants - Determination of the water absorption of backfill material - Retentive capacity.

EN 1602: 2013

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

Sphera LCA for Experts

Sphera LCA for Experts 10.7 (GaBi) LCA for Experts Software-System and Database for Life Cycle Engineering Copyright © 1992-2023 Sphera Solutions Gmbh Version: 10.7.1.28 DB Schema 8007

Sphera

Sphera Solutions Gmbh. LCA for Experts 10 LCI documentation. [GaBi Databases \(sphera.com\)](https://www.sphera.com) + ecoinvent integrated v3.9 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

