ENVIRONMENTAL PRODUCT DECLARATION

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

VARIO® MultiTape+ single-sided adhesive tape

Date of publication: 2023/12/30
Validity: 5 years
Valid until: 2028/12/30
Scope of the EPD®: Europe

THE INTERNATIONAL EPD® SYSTEM

The International EPD® System,
www.environdec.com
EPD International AB

Registration number: S-P-12186

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

Company information

Owner of the declaration: Saint-Gobain ISOVER
Programme used: EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works – Environmental product declaration - core rules for the product category of construction product and The International EPD® System
PCR identification: PCR 2019:14 version 1.2.5 for Construction products
UN CPC CODE: 3695 Builders' ware of plastics n.e.c.
Product name and location of production site: VARIO® MultiTape+ is manufactured in Germany and commercialized by Saint-Gobain ISOVER
EPD® prepared by: Aymeric.Collard (Marketing and Development central team) and Patricia Jimenez Diaz (Saint-Gobain LCA central team)
Contact: Aymeric.collard@saint-gobain.com, Patricia.jimenezdiaz@saint-gobain.com
Geographical scope of the EPD®: Europe
EPD® registration number: S-P-12186
Declaration issued: 2023/12/30 valid until: 2028/12/30
Demonstration of verification: an independent verification of the declaration was made, according to ISO 14025:2006. This verification was external and conducted by the following third party based on the PCR mentioned above.

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

CEN standard EN 15804:2012 + A2:2019 serves as the Core Product Category Rules (PCR)
Product category rules (PCR): PCR 2019:14 Construction Products, version 1.2.5
PCR review was conducted by: The Technical Committee of the International EPD® System. See www.environdec.com for a list of members.
Review chair: Claudia A. Peña. University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact - Contact via info@environdec.com
Independent third-party verification of the declaration and data, according to ISO 14025:2006:
☐ EPD process certification ☒ EPD verification
Third party verifier: Marcel Gomez (Marcel Gómez Consultoria Ambiental, info@marcelgomez.com)
Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third part 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/functional units); 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.

Product description

Product description and description of use

This Environmental Product Declaration (EPD®) describes the environmental impacts 1 linear metre of adhesive tape installed and considering a lifetime of 50 years.

This EPD applies for one specific product coming from one single plant.

The VARIO® MultiTape+ is a single-sided adhesive with a reinforcing grid and protective film. The product is packaged in rolls.
It is used in complementary accessory for external insulation of a warm pitched roof or insulation of the ceiling sheltered from the weather, insulation under a roof and insulation from the inside of a ceiling, insulation under a roof and insulation from the inside of a ceiling.

Technical data/physical characteristics:
Reaction to fire (Euroclass): E (DIN 13984)

Declaration of the main product components and/or materials

Description of the main components and/or materials for 1 linear metre of adhesive tape for the calculation of the EPD®:

PARAMETER	VALUE
Quantity per 1 linear metre	16.4 g of adhesive tape and 6 g of liner
Packaging for the transportation and distribution	Cardboard core: 1.4 g Side flange cardboard: 0.16 g Side flange PE: 0.07 g Cardboard box: 1 g Cardboard underlay: 0.05 g Stretch PE film:0.06 g Cardboard edge protection: 0.0001 g Wooden pallet: 1 g Label: 0.0002 g
Product used for the Installation	none

Description of the main product components and/or materials:

Product components	Weight (%)	Post-consumer material weight (%)	Biogenic material weight - %
Carrier	25 - 40%	0%	43,6%
Adhesive	40 - 50%	0%	0,0%
Liner	20- 28%	0%	43,2%
Sum	100%	0%	
Packaging materials	**Weight (%)**	**Weight-% (vs the product)**	**Biogenic material, weight-kg C/kg**
Cardboard core	40%	5,56%	0,0006
Side flange cardboard	5%	0,63%	0,0001
Side flange PE	2%	0,28%	0,0000
Cardboard box	28%	3,97%	0,0004
Cardboard underlay	2%	0,23%	0,0000
Stretch PE film	2%	0,25%	0,0000
Cardboard edge protection	0%	0,00%	0,0000
Wooden pallet	28%	3,97%	0,0004
Label	0%	0,00%	0,0000

During the life cycle of the product any hazardous substance listed in the “Candidate List of Substances of Very High Concern (SVHC) for authorization” has not been used in a percentage higher than 0.1% of the weight of the product.
The verifier and the programme operator do not make any claim nor have any responsibility of the legality of the product.

LCA calculation information

TYPE OF EPD	Cradle-to-gate with options, module C1-C4, module D and optional modules A4-A5 and B1-B7
DECLARED UNIT	1 linear metre of adhesive tape installed with a lifetime of 50 years
SYSTEM BOUNDARIES	Mandatory stages: A1-A3, C1-C4 and D; Optional stages: A4-A5, B1-B7
REFERENCE SERVICE LIFE (RSL)	The Reference Service Life (RSL) of the insulation product is 50 years. This 50-year value is the amount of time that we recommend our products last for without refurbishment and corresponds to standard building design life.
CUT-OFF RULES	Life Cycle Inventory data shall according to EN 15804 include a minimum of 95% of total inflows (mass and energy) per module. Flows related to human activities such as employee transport are excluded. Transportation in-site is excluded The construction of plants, production of machines and transportation systems are excluded
ALLOCATIONS	Allocation criteria are based on mass. The polluter pays and modularity principles have been followed.
GEOGRAPHICAL COVERAGE AND TIME PERIOD	Scope: Europe Data is collected from Germany plant Data collected from the year 2020
BACKGROUND DATA SOURCE	The databases Gabi 2022.1 and ecoinvent v.3.6
SOFTWARE	GaBi 10

According to EN 15804:2012+A2:2019/AC:2021, EPDs of construction products may not be comparable if they do not comply with this standard. According to ISO 21930:2017, EPDs might not be comparable if they are from different programs.

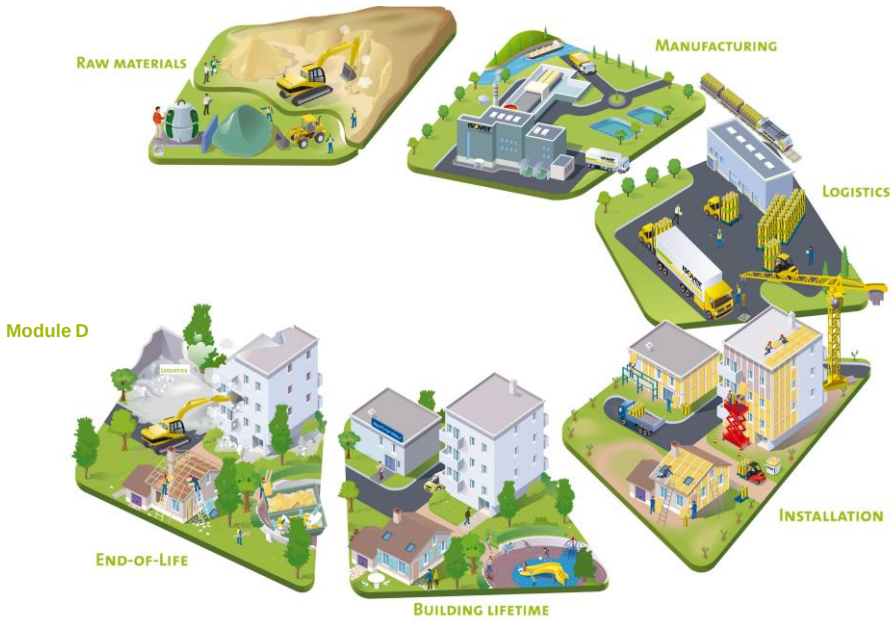
LCA scope

System boundaries (X=included. MND=module not declared)

	PRODUCT STAGE			CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY
	Raw material supply	Transport	Manufacturing	Transport	Construction-Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-recovery
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	EU	DE	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU	EU

Specific data used	>90% GWP-GHG
Variation products	0%
Variation sites	0%

Life cycle stages



A1-A3, Product stage

Description of the stage: the product stage of the tape products is subdivided into 3 modules A1, A2 and A3 respectively “raw material supply”, “transport to manufacturing” and “manufacturing”.

The aggregation of the modules A1, A2 and A3 is a possibility considered by the EN 15804 standard. This rule is applied in this EPD.

A1, Raw materials supply
This module takes into account the extraction and processing of all raw materials and energy which occur upstream to the studied manufacturing process.

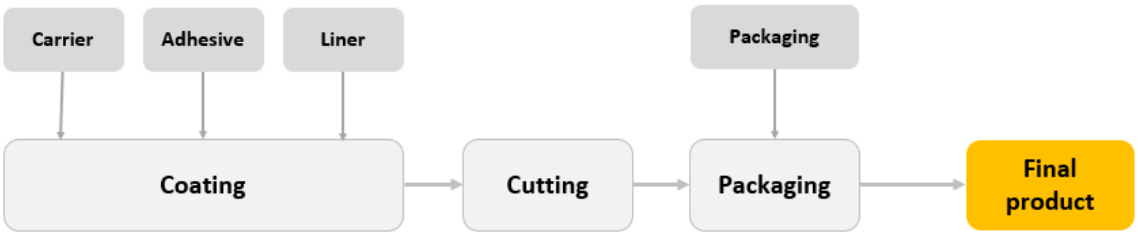
Specifically, the raw material supply covers production of polyethylene for the carrier and paper for the liner as well as the adhesive.

A2, Transport to the manufacturer
The raw materials are transported to the manufacturing site. In our case, the modeling include: road, sea and rail (average values) of each raw material.

A3, Manufacturing
This module includes the manufacturing of the product and packaging. A loss rate is considered at this step as well as the amount of packaging waste.
The manufacturing process takes place in several stages, the first and most important of which involves coating the adhesive resin between the substrate (carrier) and the protective film (liner). This stage consumes natural gas to evaporate the solvent, which is then recycled. Electricity is used to powering the line (conveyor belt, etc.). After an inspection stage, the strip is cut, and then packaged in individual rolls. A simplified diagram of the manufacturing process is below.

Manufacturing process flow diagram

System diagram:



A4-A5, Construction process stage

Description of the stage: the construction process is divided into 2 modules: A4, transport to the building site and A5, installation in the building. Since there is a product loss during installation, the quantification of raw material compensation (A5) and its transport to the building site (A4) are considered.

A4, Transport to the building site: This module includes transport from the production gate to the building site. Transport is calculated based on a scenario with the parameters described in the following table.

PARAMETER	VALUE
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long distance truck, boat, etc.	Freight truck, maximum load weight of 24 t and consumption of 0.38 liters per km
Distance	1500 km
Capacity utilisation (including empty returns)	100% of the capacity in volume

	30% of empty returns
Bulk density of transported products	531 kg per pallet and 33 pallet per truck
Volume capacity utilisation factor	1

A5, Installation in the building: this module includes:

PARAMETER	VALUE/DESCRIPTION
Materials for installation (specified by materials)	None
Water use	None
Other resource use	None
Quantitative description of energy type regional mix) and consumption during the installation process	None
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	5% of adhesive tape (product) Liner of the product: 6 g Cardboard core: 1.4 g Side flange cardboard: 0.16 g Side flange PE: 0.07 g Cardboard box: 1 g Cardboard underlay: 0.05 g Stretch PE film:0.06 g Cardboard edge protection: 0.0001 g Wooden pallet: 1 g Label: 0.0002 g
Distance	50 km to landfill by truck
Output materials (specified by type) as results of waste processing at the building site e.g. of collection for recycling, for energy recovering, disposal (specified by route)	The liner is sent to landfill (100%) Cardboard packaging waste is sent to landfill (19%), recycling (57%) and incineration without energy recovery (24%). Wooden pallets packaging waste is sent to landfill (13%), recycling (7%) and incineration with energy recovery (80%). Polyethylene (low-density) packaging waste is sent to landfill (44.4%) and incineration without energy recovery (55.6%)

B1-B7, Use stage (excluding potential savings)

Description of the stage: the use stage is divided into the following modules:

- B1: Use
- B2: Maintenance
- B3: Repair
- B4: Replacement
- B5: Refurbishment
- B6: Operational energy use
- B7: Operational water use

Description of the scenarios and additional technical information:
The product has a reference service life of 50 years. This assumes that the product will last in situ with no requirements for maintenance, repair, replacement, or refurbishment throughout this period. Therefore, it has no impact at this stage.

C1-C4, End of Life Stage

Description of the stage: this stage includes the next modules:

C1, Deconstruction, demolition

The de-construction and/or dismantling of tapes take part of the demolition of the entire building. There are not inputs or outputs quantified in this step.

C2, Transport to waste processing
The model use for the transportation (see A4, transportation to the building site) is applied.

C3, Waste processing for reuse, recovery and/or recycling
The product is considered to be landfilled without reuse, recovery or recycling.

C4, Disposal
The product is assumed to be 100% landfilled.

Description of the scenarios and additional technical information:

PARAMETER	VALUE/DESCRIPTION
Collection process specified by type	The entire product is collected alongside any mixed construction waste. 16.4 g of adhesive tape
Recovery system specified by type	There is no recovery, recycling or reuse of the product once it has reached its end of life phase.
Disposal specified by type	100% (16.4 g) of adhesive tape is landfilled
Assumptions for scenario development (e.g. transportation)	The waste going to landfill is transported 50 km by truck from deconstruction/demolition sites to landfill

D, Reuse/recovery/recycling potential

100% of adhesive tape waste is landfilled. There is no reuse, nor recovery, nor recycling of this product. Hence, the benefits and load reported on stage D proceed of the recycling and recovery energy of the packaging materials in stage A5.

LCA results

As specified in EN 15804:2012+A2:2019/AC:2021 and the Product Category Rules, the environmental impacts are declared and reported using the baseline characterization factors are from the ILCD. Specific data has been supplied by the plant, and generic data come from GABI and ecoinvent databases.

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

All emissions to air, water, and soil, and all materials and energy used have been included.

All the results refer to a declared unit of 1 linear metre of adhesive tape installed with a lifetime of 50 years.

Environmental Impacts

Environmental indicators	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				REUSE, RECOVERY RECYCLING
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Climate Change [kg CO2 eq.]	4,27E-02	4,44E-03	2,03E-02	0	0	0	0	0	0	0	0	5,00E-05	0	1,99E-03	-4,12E-04
Climate Change (fossil) [kg CO2 eq.]	5,79E-02	4,44E-03	3,47E-03	0	0	0	0	0	0	0	0	5,00E-05	0	1,99E-03	6,78E-05
Climate Change (biogenic) [kg CO2 eq.]	-1,53E-02	1,56E-06	1,68E-02	0	0	0	0	0	0	0	0	1,76E-08	0	0	-4,80E-04
Climate Change (land use change) [kg CO2 eq.]	5,75E-05	1,90E-07	3,00E-06	0	0	0	0	0	0	0	0	2,14E-09	0	3,76E-08	5,89E-07
Ozone depletion [kg CFC-11 eq.]	7,37E-08	1,00E-09	3,79E-09	0	0	0	0	0	0	0	0	1,13E-11	0	5,12E-11	1,80E-11
Acidification terrestrial and freshwater [Mole of H+ eq.]	2,84E-04	1,52E-05	1,81E-05	0	0	0	0	0	0	0	0	1,71E-07	0	1,26E-06	1,67E-06
Eutrophication freshwater [kg P eq.]	5,66E-04	5,27E-05	4,41E-05	0	0	0	0	0	0	0	0	5,94E-07	0	5,03E-06	4,32E-06
Eutrophication marine [kg N eq.]	5,13E-05	4,79E-06	1,03E-05	0	0	0	0	0	0	0	0	5,40E-08	0	2,07E-06	1,01E-06
Eutrophication terrestrial [Mole of N eq.]	2,12E-06	6,06E-09	1,11E-07	0	0	0	0	0	0	0	0	6,83E-11	0	1,66E-09	4,21E-08
Photochemical ozone formation - human health [kg NMVOC eq.]	2,15E-04	1,45E-05	1,53E-05	0	0	0	0	0	0	0	0	1,63E-07	0	1,86E-06	8,05E-09
Resource use, mineral and metals [kg Sb eq.][1]	1,04E-06	3,25E-09	5,42E-08	0	0	0	0	0	0	0	0	3,66E-11	0	1,24E-09	4,33E-09
Resource use, energy carriers [MJ][1]	1,52E+00	6,09E-02	8,22E-02	0	0	0	0	0	0	0	0	6,85E-04	0	3,77E-03	-3,21E-03
Water deprivation potential [m³ world equiv.][1]	4,83E-02	3,43E-05	2,66E-03	0	0	0	0	0	0	0	0	3,86E-07	0	2,01E-04	-1,36E-04

[1] The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

Resources Use

Resources Use indicators	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				D REUSE, RECOVERY, RECYCLING
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Use of renewable primary energy (PERE) [MJ]	3,22E-01	1,63E-04	1,76E-02	0	0	0	0	0	0	0	0	1,84E-06	0	1,68E-04	9,81E-03
Primary energy resources used as raw materials (PERM) [MJ]	1,46E-01	0	-1,95E-02	0	0	0	0	0	0	0	0	0	0	0	-7,18E-03
Total use of renewable primary energy resources (PERT) [MJ]	4,69E-01	1,63E-04	-1,91E-03	0	0	0	0	0	0	0	0	1,84E-06	0	1,68E-04	2,63E-03
Use of non-renewable primary energy (PENRE) [MJ]	8,61E-01	6,09E-02	4,93E-02	0	0	0	0	0	0	0	0	6,85E-04	0	3,77E-03	6,93E-03
Non-renewable primary energy resources used as raw materials (PENRM) [MJ]	6,79E-01	0	2,78E-02	0	0	0	0	0	0	0	0	0	0	0	-4,16E-03
Total use of non-renewable primary energy resources (PENRT) [MJ]	1,54E+00	6,09E-02	7,71E-02	0	0	0	0	0	0	0	0	6,85E-04	0	3,77E-03	2,77E-03
Input of secondary material (SM) [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-5,65E-04
Use of renewable secondary fuels (RSF) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,00E+00
Use of non-renewable secondary fuels (NRSF) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,00E+00
Use of net fresh water (FW) [m3]	1,17E-03	7,98E-07	6,40E-05	0	0	0	0	0	0	0	0	8,99E-09	0	4,67E-06	-3,78E-06

Waste Category & Output flows

	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				D REUSE, RECOVERY, RECYCLING
Waste Category & Output Flows	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Hazardous waste disposed (HWD) [kg]	6,39E-07	1,67E-07	4,57E-08	0	0	0	0	0	0	0	0	1,89E-09	0	4,49E-09	3,05E-09
Non-hazardous waste disposed (NHWD) [kg]	2,31E-02	9,95E-05	1,07E-02	0	0	0	0	0	0	0	0	1,12E-06	0	1,64E-02	6,56E-05
Radioactive waste disposed (RWD) [kg]	6,85E-06	4,44E-07	4,31E-07	0	0	0	0	0	0	0	0	5,00E-09	0	2,47E-08	-5,24E-07
Components for re-use (CRU) [kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Materials for Recycling (MFR) [kg]	0	0	7,33E-04	0	0	0	0	0	0	0	0	0	0	0	0
Material for Energy Recovery (MER) [kg]	0	0	8,00E-04	0	0	0	0	0	0	0	0	0	0	0	0
Exported electrical energy (EEE) [MJ]	0	0	1,02E-03	0	0	0	0	0	0	0	0	0	0	0	0
Exported thermal energy (EET) [MJ]	0	0	2,14E-03	0	0	0	0	0	0	0	0	0	0	0	0

Additional voluntary indicators from EN 15804 (according to ISO 21930:2017)

	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				REUSE, RECOVERY RECYCLING
Environmental indicators	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
GWP-GHG [kg CO2 eq.][2]	5,79E-02	4,44E-03	3,47E-03	0	0	0	0	0	0	0	0	5,00E-05	0	1,99E-03	6,78E-05

Information on biogenic carbon content

	PRODUCT STAGE
Biogenic Carbon Content	**A1 / A2 / A3**
Biogenic carbon content in product [kg]	2,59E-03
Biogenic carbon content in packaging [kg]	1,58E-03

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO2.

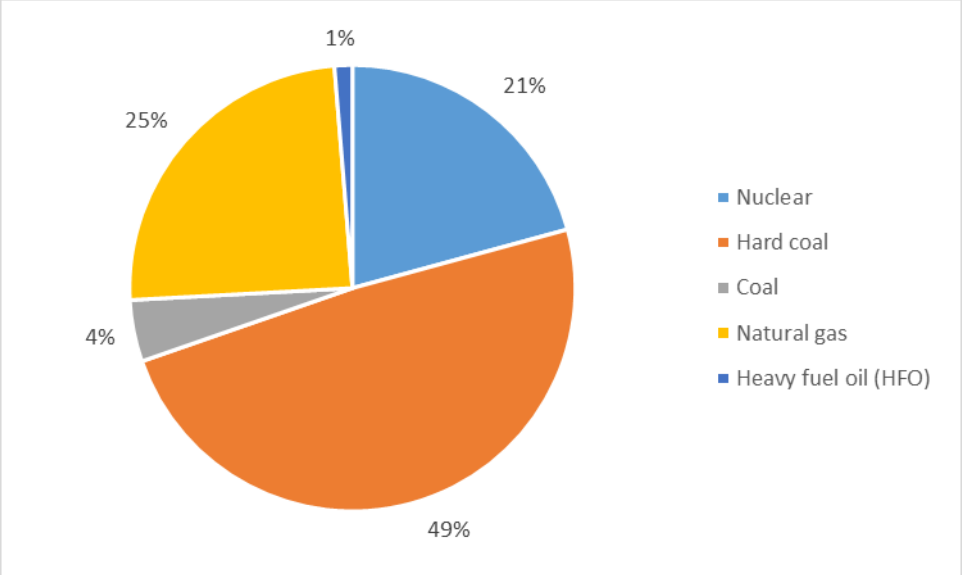
Biogenic carbon content in the product come from the paper in the carrier component that is deposal in A5 during the installation. Regarding packaging, biogenic carbon is quantified due to wooden pallets and cardboard production.

[2] 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.

Additional information:

Electricity information

TYPE OF INFORMATION	DESCRIPTION
Location	Representative of electricity residual mix consumed by the plant in Germany
Geographical representativeness description	Share of energy sources • Coal: 4% • Hard coal: 49 % • HFO: 1 % • Natural gas: 25 % • Nuclear: 21%
Reference year	2022
Type of dataset	Cradle to gate
Source	Dataset from Gabi 2022.1database
CO_2 emission kg CO_2 eq. / kWh	0.68 kg of CO2 eq/kWh Based on Climate Change - fossil indicator



Environmental impacts according to EN 15804:2012 + A1

The following tables presents results of VARIO MultiTape+ according to EN 15804+A1 for 1 linear metre of adhesive tape installed with a lifetime of 50 years.

	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				REUSE, RECOVERY, RECYCLING
Environmental impacts	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Global Warming Potential (GWP) [kg CO2eq.]	5,51E-02	4,41E-03	4,24E-03	0	0	0	0	0	0	0	0	4,96E-05	0	1,49E-03	0
Ozone depletion (ODP) [kg CFC 11eq.]	9,61E-08	7,92E-10	4,90E-09	0	0	0	0	0	0	0	0	8,93E-12	0	4,14E-11	0
Acidification potential (AP) [kg SO2eq.]	2,42E-04	1,17E-05	1,53E-05	0	0	0	0	0	0	0	0	1,32E-07	0	1,01E-06	0
Eutrophication potential (EP) [kg (PO4)3-eq.]	8,23E-05	3,06E-06	8,06E-06	0	0	0	0	0	0	0	0	3,44E-08	0	1,05E-06	0
Photochemical ozone creation (POCP) - [kg Ethylene eq.]	2,90E-05	8,14E-07	1,80E-06	0	0	0	0	0	0	0	0	9,17E-09	0	3,35E-07	0
Abiotic depletion potential for non-fossil resources (ADP-elements) [kg Sb eq.]	1,05E-06	3,27E-09	5,50E-08	0	0	0	0	0	0	0	0	3,68E-11	0	1,26E-09	0
Abiotic depletion potential for fossil resources (ADP-fossil fuels) [MJ]	7,47E-01	6,06E-02	4,32E-02	0	0	0	0	0	0	0	0	6,83E-04	0	3,57E-03	0

References

1. ISO 14040:2006: Environmental Management-Life Cycle Assessment-Principles and framework.
2. ISO 14044:2006: Environmental Management-Life Cycle Assessment-Requirements and guidelines.
3. ISO 14025:2006: Environmental labels and Declarations-Type III Environmental Declarations-Principles and procedures.
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