Environmental Product Declaration

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

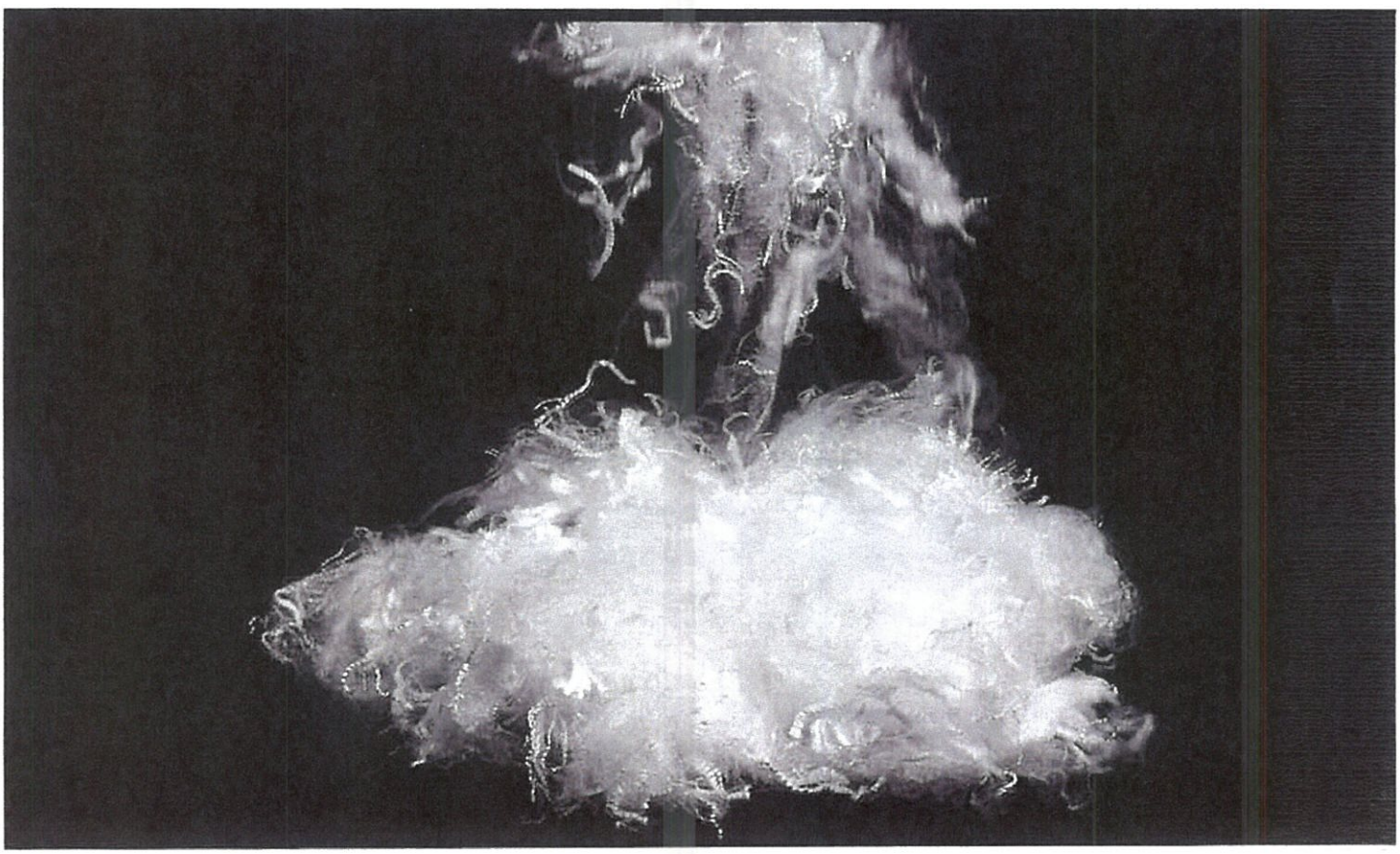
Polypropylene fibre STAVON

from

TREVOS KOŠŤÁLOV s.r.o.

Programme:	"National Environmental Labeling Program" - Czech Republic (NPEZ)
Programme operator:	Ministry of the Environment of the Czech Republic, CENIA, Czech Environmental Information Agency, executive function of the NPEZ Agency
EPD registration number:	**7250006**
Publication date:	2025-08-20
Valid until:	2030-08-19

An EPD should provide current information and may be updated if conditions change.



General information

Programme information

Programme:	"National Environmental Labeling Program" - Czech Republic (NPEZ)
Address:	Ministry of the Environment of the Czech Republic Department of Voluntary Instruments 100 10 Praha 10, Vršovická 1442/65
Website:	www.mzp.cz, www.cenia.cz
E-mail:	info@mzp.cz

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): *EN ISO 15804+A2:2019: Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products, UN CPC: 35510*
Life Cycle Assessment (LCA)
LCA accountability: ***Technický a zkušební ústav stavební Praha, s.p.,*** 190 00 Praha 9, Prosecká 811/76a, CZ Computational program OneClick LCA
Third-party verification
Procedure for follow-up of data during EPD validity involves third party verifier: ☐Ano ☒ne

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.

Company information

Owner of the EPD: TREVOS Košťálov s.r.o.

Contact:
Ing. Jiří Stmad

Description of the organisation:

TREVOS Košťálov s.r.o. operates at Košťálov 145, 512 02 in the Liberec Region and manufactures polypropylene staple fiber. TREVOS s.r.o. was established in 1993 during privatization by transforming part of a state-owned enterprise engaged in the production and sale of textiles. Since 1996, TREVOS Košťálov s.r.o. has become a major producer of polypropylene staple fiber not only in the Czech Republic but also abroad.

Product-related or management system-related certifications:
The quality of the products is ensured by an effective quality management system according to EN ISO 9001 and is in accordance with the technical regulations regarding the type of product. The product has also been assessed for its properties in accordance with EN 14889-2:2006.

Name and location of production site(s):
512 02 Košťálov, Košťálov 145, Czech republic

Product information

Product name: STAVON polypropylene staple fiber

Product identification:
Polypropylene staple fibers for use in accordance with EN 14889-2:2006 Fibres for concrete - Part 2: Polymer fibres - Definitions, specifications and conformity

Product description:

The LCA analysis and EPD issued only assess STAVON fiber, i.e., fiber used in construction as an additive to concrete. In addition, TREVOS Košťálov s.r.o. also manufactures other polypropylene fibers listed below, which have a wide range of uses in other industries.

Polypropylene staple fiber can be divided into:

a) in terms of geometric properties and appearance

- according to fiber fineness 1,0 - 17,0 dtex
- according to the length of the cut 3, 4, 6, 8, 12, 18, 30, 40, 50, 60, 75, 90, 120 mm
- according to the number of arches 2 - 12 arches/cm

Note: These parameters can be combined in various ways to obtain a thread of the desired fineness, length, and number of arches.

b) in terms of the mechanical properties of the fibers, further processing, and intended use

- TPS - thermally bonded POP fiber for processing using thermobond technology, suitable for use in the manufacture of hygiene products
- Geo - POP fiber with high strength and low elongation, suitable for the production of geotextiles with higher specific weight
- Ba - POP fiber with properties similar to cotton fiber, suitable for spinning yarns and also for the production of geotextiles with lower specific weight per unit area
- PKH - high-shrinkage POP fiber, which shrinks by 30-40% of its length during further processing when exposed to hot air at 150°C for 10 minutes.
- STAVON – POP short-cut fiber, which is mainly used in construction (as an additive in concrete and mortar mixtures), etc.
- HT – POP High-strength fibers for the production of needle-punched nonwoven textiles (geotextiles).

TREVON polypropylene staple fiber

Fiber type - designation	Average strength [cN/dtex]	Average Duktility [%]	Number of arches [1/10 mm]	Standard manufactured fineness [dtex]
TPS	min. 1,6	min. 250	6 - 12	2,2 - 6,7
TPS B	min. 2,5	min. 120	4 - 10	3,5 - 17,0
Cotton	min. 3,5	min. 70	5 - 9	1,5 – 3,9
Cotton V	min. 4,0	min. 60	5 - 9	1,5 – 3,9
Cotton W	min. 4,5	min. 40	5 - 9	1,5 – 3,9
Geo	min. 3,5	min. 70	3 - 8	3,3 - 13,0
GeoV	min. 4,0	min. 60	3 - 7	3,3 - 11,0
GeoW	min. 4,5	min. 40	2 - 7	3,3 - 6,7
HT	min. 5,0	min. 40	2 - 7	2,8 – 6,7
PKH	min. 3,5	min. 70	5 - 9	1,5
Stavon	min. 3,7	min. 50	without arches	2,3 7,0 (18 µm 32 µm)

All types, their fineness and parameters can be customized to customer requirements.

- Cut length for all types of TPS, Cotton, Geo, and PKH - 30, 40, 50, 60, 75, 90, 120 mm
- Cut length for Stavon type - 3, 4, 6, 8, 12, 18 mm
- Color design of fibers according to the company's offer (color chart) or according to your own submitted sample
- UV stabilization, fireproof treatment, antiseptic treatment, and others according to customer requirements

Mechanical properties

Mechanical properties depend on the parameters specified during fiber production. The specified parameters enable the production of fibers with the desired properties according to customer requirements.

It is also possible to obtain fibers with mechanical properties similar to those of cotton, i.e., fibers with low fineness, low elongation, and high strength, by selecting the input parameters. POP fibers with such properties are then suitable for processing using OE spinning technology.

The moisture content in % of polypropylene is very low and negligible (approx. 0.05-0.15%). Water sorption only affects the surface of the material and depends on the fabric softener content on the fiber.

Fiber impurity content in %: max. 0.001%

Polypropylene staple fiber does not contain such a large amount of impurities that would cause an increase in the number of defects when splitting the fiber layer during further processing.

Chemical properties

Due to its non-polar nature, polypropylene is generally very chemically stable. It is stable against solutions of inorganic salts, acids, and bases over a wide range of temperatures and concentrations, but is not resistant to oxidizing agents. It swells in halogenated aromatic hydrocarbons and some solvents.

Electrical properties

Polypropylene has very good electrical insulation and dielectric properties due to its non-polar molecular structure. Its surface resistance is higher than 1013 Ω.

UN CPC code: 35510 Synthetic filament tow and staple fibres, not carded or combed

Geographical scope:

The generic data used from the database available in the OneClick LCA program (Ecoinvent 3.10.1 and EPD products) are used with validity for the Czech Republic (e.g., energy inputs), and if data for the Czech Republic are not available, data valid for the EU are used. Based on the evaluation according to EN 15804+A2, Annex E, tab. E.1 the generic data used meet the quality level - medium.

Product packaging:

Products are delivered in accordance with the standards specified in the product description. The product is packaged either in large big bags, in which it is delivered directly to the customer, or the fibers from the big bags are further processed on a packaging line, where they are packaged in smaller quantities in water-soluble paper bags, which are then delivered to the customer in cardboard boxes.

Environment and health during use

During the entire production process, it is not necessary to take any special health protection measures beyond the legally specified industrial protection measures for production employees.

LCA information

Functional unit / declared unit:

The declared unit is 1 kg of average manufactured product – STAVON polypropylene staple fiber.

Designation	Unit	Value
Declared unit	kg	1
Conversion factor per 1 kg	kg	1

Reference service life:

The reference service life of the product is determined by the service life of the concrete of which it is an integral part, which is at least 50 years (according to ČSN EN 206+A2 Concrete - Specification, properties, production, and conformity).

Time representativeness:

For specific data, manufacturer data for 2024 is used. For generic data, data from a set of databases that are part of the OneClick LCA program (Ecoinvent database version 3.10.1, OneClick LCA database, and others) are used. Based on the evaluation according to EN 15804+A2, Annex E, Table E.1, the generic data used meet the quality level - very good.

Database(s) and LCA software used

The OneClick LCA tool and database (EPD Hub Core PCR version 1.2, March 24, 2025) were used to assess the processes. The OneClick LCA database represents the latest available data in the form of EPDs complying with EN 15804 and data from Ecoinvent 3.10.1 (2024).

The GWP-GHG of electricity is 0.78 kg CO2e/kWh (Czech Republic mix).

Description of system boundaries:

Cradle to gate (A1–A3).

The production phase includes the following modules:

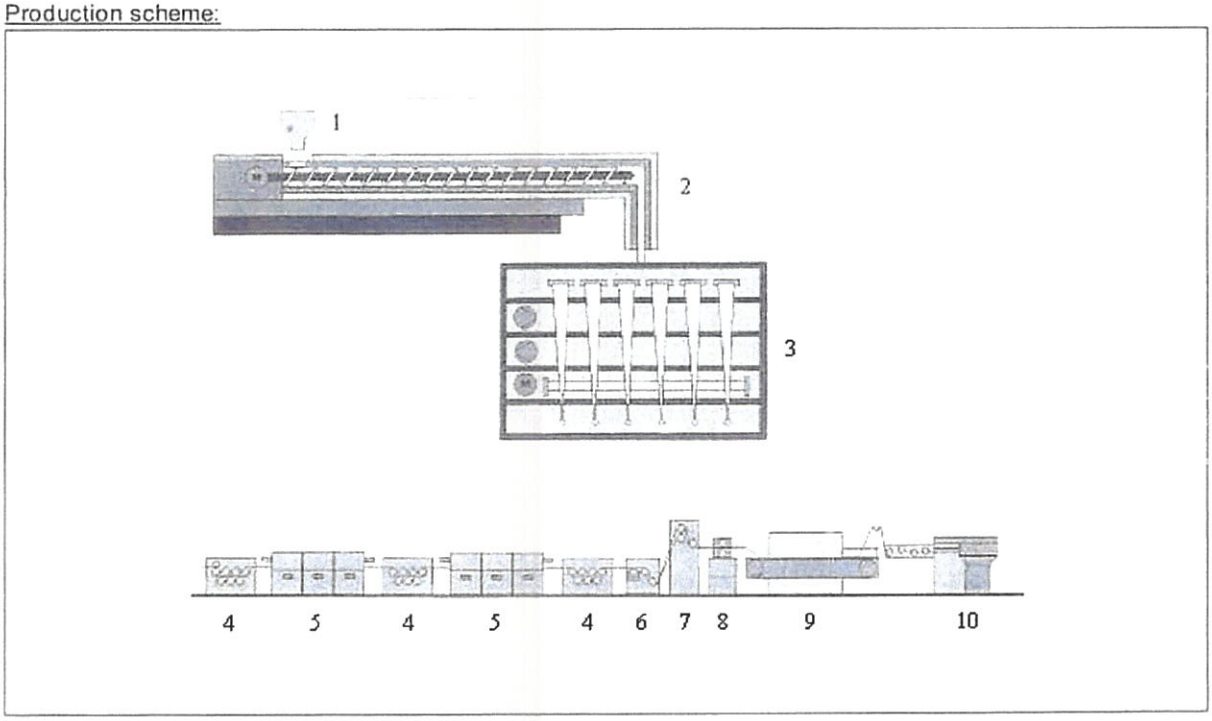
- **A1** - extraction and processing of raw materials and production of packaging from input raw materials
- **A2** - transport of input raw materials from the supplier to the manufacturer, waste removal
- **A3** - production of products, production of auxiliary materials and semi-finished products, energy consumption, including waste processing until reaching a state where it ceases to be waste or after removal of the last material residues during the production phase

According to ČSN EN 15804+A2 Article 5.2, the product meets the following conditions:

- the product or material is physically connected to other products during installation in such a way that it cannot be physically separated from them at the end of its service life,
- the product or material can no longer be identified at the end of its life cycle as a result of a physical or chemical transformation process,
- the product or material does not contain biogenic carbon,

and is therefore exempt from the declaration of modules C1 – C4 and module D.

Production scheme:



1 – dosing device
2 – extruder
3 – spinning wall
4 – stretching rollers (cylinders)
5 – heating channel
6 – device for additional application of fabric softener
7 – cable winding device
8 – crimper
9 – dryer
10 – cutting machine

More information:

Information modules A4 and A5 and B1 to B7, C and D are not declared, as the product meets the conditions for exemption, see chapter "Description of system boundaries."

All operational data relating to the consumption of main and auxiliary materials for the manufacture of the product, energy data, diesel consumption, and the distribution of annual waste production and emissions according to plant records were taken into account for the study. In terms of waste produced, only waste that is clearly related to production activities was included in the analysis.

The processes necessary for the installation of production equipment and infrastructure construction were not included in the analysis. Administrative processes are also not included – inputs and outputs are balanced at the production stage.

The manufacturer's input data was allocated according to weight (applied to energy, water consumption, raw materials, and packaging materials, where relevant). The assessed product, STAVON polypropylene staple fiber, accounts for only 8.18% of total production.

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	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Geography	GLO EU	GLO, EU	EU, CZ	-									-	-	-	-	-
Specific data used	> 95 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-

The data used to calculate the EPD conforms to the following principles:

Technological point of view: Data corresponding to the current production of individual types of partial products of the plant and corresponding to the current state of the technologies used are used. Based on the evaluation according to EN 15804+A2, Annex E, tab. E.1 the generic data used meet the quality level - very good.

The aspect of completeness and completeness: Most of the input data is based on consumption balances, which are precisely recorded in the manufacturer's information system. The reliability of the source of specific data is determined by the uniformity of the collection methodology of the information system.

Consistency point of view: Uniform points of view are used throughout the report (allocation rules, age of data, technological scope of validity, temporal scope of validity, geographical scope of validity).

Credibility aspect: All important data were checked for adherence to cross-comparison of mass balances.

Content information

Product components	Weight %	Post-consumer material, weight-%	Biogenic carbon content in kg C/DU
Polypropylene (PP), granules	>99,5	0	0
Antistatic agent	<0,5	0	0
TOTAL	100	0	0

Packaging materials	Weight %	Weight-% (versus the product)	Biogenic carbon content in kg C/DU
LDPE packaging film (BIG-BAG)	2,94	0,26	0
LDPE packaging film (shrink film)	1,11	0,10	0
Paper packaging (PVA bags)	3,66	0,32	0
Paper packaging (corners)	1,24	0,11	0,000507
Paper packaging (cardboard boxes)	14,34	1,27	0,005836
Wooden pallets (non-returnable)	0,74	0,07	0,036818
Strapping tapes (PET tape)	75,97	6,71	0
TOTAL	100	0	0

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit (DU)
They are not	-	-	-

Substances listed on the list of substances of very high concern subject to authorization by the European Chemicals Agency are not contained in the product in declarable quantities.

Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804:2012+A2:2019/AC:2021, EF 3.1

Results per functional or declared unit

Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-fosil	kg CO_2 ekv.	2,38E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
GWP-biogenic	kg CO_2 ekv.	5,34E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
GWP- luluc	kg CO_2 ekv.	6,88E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
GWP - total	kg CO_2 ekv.	2,43E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ODP	kg CFC 11 ekv.	1,24E-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AP	mol H^+ ekv.	1,22E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
EP-freshwater	kg P ekv.	1,40E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
EP- marine	kg N ekv.	2,20E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
EP - terrestrial	mol N ekv.	2,56E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
POCP	kg NMVOC ekv.	8,79E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ADP- minerals& metals*	kg Sb ekv.	1,96E-06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ADP-fosil*	MJ	2,24E+03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
WDP*	m^3	8,32E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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

** Disclaimer: 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.*

Additional mandatory and voluntary impact category indicators

Results per functional or declared unit

Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG[1]	kg CO_2 ekv.	2,38E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM	Disease incidence	8,22E-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IRP	kBq U235 ekv.	4,10E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ETP- fw	CTUe	2,12E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HTP-c	CTUh	5,09E-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HTP- nc	CTUh	1,07E-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SQP	dimensionless	2,13E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Acronyms

GWP-GHG = this Indicator includes all greenhouse gases except biogenic uptake and emissions of carbon dioxide 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, **PM** = Potential Incidence of disease due to PM emissions, **IRP** = Potential Human exposure efficiency relative to U235, **ETP-fw** = Potential Comparative Toxic Unit for ecosystems, **HTP-c** = Potential Comparative Toxic Unit for humans, **HTP-nc** = Potential Comparative Toxic Unit for humans, **SQP** = Potential soil quality index

[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.*

Resource use indicators

		Results per functional or declared unit													
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	1,23E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PERM	MJ	7,17E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PERT	MJ	1,30E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PENRE	MJ	3,84E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PENRM	MJ	4,78E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PENRT	MJ	8,62E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SM	kg	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
RSF	MJ	1,78E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
NRSF	MJ	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FW	m^3	3,50E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Acronyms

PERE = Use of renewable primary energy excludingrenewable 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

Additional environmental information - Waste indicators

		Results per functional or declared unit													
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	3,90E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Non-hazardous waste disposed	kg	1,61E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Radioactive waste disposed	kg	1,38E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Additional environmental information - Output flow indicators

		Results per functional or declared unit													
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Material for recycling	kg	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Materials for energy recovery	kg	1,17E-06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Exported energy, electricity	MJ	9,11E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Exported energy, thermal	MJ	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

The result tables shall only contain values or the letters "ND" (Not Declared). It is not possible to specify ND for mandatory indicators. ND shall only be used for voluntary parameters that are not quantified because no data is available..

Other environmental performance indicators

None

Additional environmental information

Given that the product becomes part of the concrete after leaving the factory, the product's service life is determined by the service life of the concrete of which it is an integral part, which is at least 50 years (according to ČSN EN 206+A2 Concrete - Specification, properties, production, and conformity). TREVOS Košťálov s.r.o. has recently purchased a line for recycling waste from production and products, including those that had other uses than STAVON fibers. In the future, they want to use a proportion of recycled material in their products, thereby reducing both the waste generated and the consumption and import of raw materials (polypropylene granulate). This line is currently in the implementation and testing phase, and its positive impact on the environment is not included in the current EPD.

Information related to Sector EPD

Not relevantí

Differences versus previous versions

- *This is the first version of the EPD.*

References

ČSN ISO 14025:2010 Environmentální značky a prohlášení - Environmentální prohlášení typu III - Zásady a postupy (Environmental labels and declarations - Type III environmental declarations - Principles and procedures)
ČSN EN 15804+A2:2020 Udržitelnost staveb - Environmentální prohlášení o produktu - Zásadní pravidla pro produktovou kategorii stavebních výrobků (Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products)
ČSN EN ISO 14040:2006 Environmentální management - Posuzování životního cyklu - Zásady a osnova (Environmental management - Life Cycle Assessment - Principles and Framework)
ČSN EN ISO 14044:2006 Environmentální management - Posuzování životního cyklu – Požadavky a směrnice (Environmental management - Life Cycle Assessment – Requirements and guidelines)
ČSN ISO 14063:2007 Environmentální management - Environmentální komunikace - Směrnice a příklady (Environmental management - Environmental communication - Guidelines and examples)
ČSN EN 15643-1:2011 Udržitelnost staveb - Posuzování udržitelnosti budov - Část 1: Obecný rámec (Sustainability of construction works - Sustainability assessment of buildings - Part 1: General framework)
ČSN EN 15643-2:2011 Udržitelnost staveb - Posuzování udržitelnosti budov - Část 2: Rámec pro posuzování environmentálních vlastností (Sustainability of construction works - Assessment of buildings - Part 2: Framework for the assessment of environmental performance)
ČSN EN 15942:2013 Udržitelnost staveb - Environmentální prohlášení o produktu - Formát komunikace mezi podniky (Sustainability of construction works - Environmental product declarations - Communication format business-to-business)
ČSN EN 15941 Udržitelnost staveb - Environmentální prohlášení o produktu - Metodologie výběru a použití generických dat (Sustainability of construction works - Environmental product declarations - Methodology for selection and use of generic data)
ČSN EN 16449:2014 Dřevo a výrobky na bázi dřeva - Výpočet obsahu biogenního uhlíku ve dřevě a přeměny na oxid uhličitý (Wood and wood-based products - Calculation of the biogenic carbon content of wood and conversion to carbon dioxide)
ILCD handbook - JRC EU, 2011
Zákon č. 541/2020 Sb. v platném znění (Zákon o odpadech); Act No. 541/2020 Coll., as amended (Waste Act)
Vyhláška č. 8/2021 Sb. Katalog odpadů – Katalog odpadů, (Decree No. 8/2021 Coll. Waste catalogue – Waste catalogue)
Nařízení Evropského parlamentu č. 1907/2006 o registraci, hodnocení, povolování a omezování chemických látek a o zřízení Evropské agentury pro chemické látky - REACH (registrace, evaluace a autorizace chemických látek); (Regulation (EC) No 1907/2006 of the European Parliament concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency - REACH (Registration, Evaluation and Authorisation of Chemicals)
Nařízení Evropského parlamentu a Rady (ES) č. 1272/2008 o klasifikaci, označování a balení látek a směsí, o změně a zrušení směrnic 67/548/EHS a 1999/45/ES a o změně nařízení (ES) č. 1907/2006 (nařízení CLP), (Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP Regulation))
OneClick LCA , www.oneclicklca.com
Ecoinvent Centre, www.Ecoinvent.org
Explanatory documents are available from the head of Technical Support of the EPD owner.

a) *Pozn. Pokud jako PCR není použita norma CSN EN 15804 je nutné uvést jako základní platné PCR dle kterého bylo EPD zpracováno.*

Independent verification of the declaration and data according to EN ISO 14025:2010			
CEN standard EN ISO 15804+A2:2019 developed by CEN serves as the basic PCR[a]			
☐	internal	☒	external
Third party verifier [b]:			
Elektrotechnický zkušební ústav, s. p. Pod lisem 129/2, Troja, 182 00 Praha 8 Czech Republic ezú elektrotechnický zkušební ústav		Mgr. Miroslav Sedláček *Head of the Certification Body* 	
Certification body No. 3018 for EPD verification, accredited by the Czech Accreditation Institute, o.p.s.			
[a] *Products category rules* [b] *Optional for business-to-business communication, mandatory for business-to-consumer communication (see ISO 14025:2006, 9.4).*			

This document is a translation of the EPD issued in Czech.in cause of doubt use the Czech version of this EPD as a reference.

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