

Environmental Product Declaration

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

Recycled rubber products for track construction

from

HET - Pragoelast s.r.o.



Programme:

Programme operator:

EPD registration number:

Publication date:

Valid until:

"National Environmental Labeling Program" - Czech Republic (NPEZ)

Ministry of the Environment of the Czech Republic, CENIA, Czech
Environmental Information Agency, executive function of the NPEZ Agency

3015-EPD-030065145

2024-04-12

2029-04-12



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 15804+A2
Life Cycle Assessment (LCA)
LCA accountability: HET - Pragoelast s.r.o., 153 00 Praha – Radotín, Na Cikánce 614/2, CZ
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: <input checked="" type="checkbox"/> EPD verification by accredited certification body Third-party verification: Technický a zkušební ústav stavební Praha, s.p. is an approved certification body accountable for the third-party verification. 190 00 Praha 9, Prosecká 811/76a, CZ The certification body is accredited by: Czech Accreditation Institute., Certificate No. 458/2023
Verifier: Ing. Lenka Vrbová  
Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Ano <input checked="" type="checkbox"/> 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: HET - Pragoelast s.r.o.

Contact:

HET - Pragoelast sro

Na Cikánce 614/2

153 00 Praha - Radotín, CZ

Jozef Markovič, mail: jozef.markovic@pragoelast.cz

Description of the organisation:

At the beginning there was the idea of producing environmentally friendly products. To this day, nothing has changed. HET Elastomertechnik GmbH offers attractive and innovative products where sustainability and environmental protection are always at the forefront, whether for sports and leisure, for our core area of track construction or for industry and traffic safety.

HET is a competent provider of customized solutions for the protection of people and systems using sustainable materials made of rubber or cable granules from the recycling cycle.

HET's innovative products and solutions offer protection from injury, noise, emissions or other environmental influences and help customers solve their problems.

HET - PRAGOELAST spol. s.r.o. was founded in October 1995 as a subsidiary of the then joint-stock company Pragoement as (later Českomoravský cement as) and Heidelberger Elastomertechnik GmbH Haßmersheim, headquartered in Heidelberg, Germany. In December 2000, HET - Pragoelast s.r.o. became a 100 % subsidiary of HET-Elastomertechnik GmbH, Haßmersheim, Germany.

Our mission

- Success thanks to quality and services.
- We protect what you love.

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 manufacturer has implemented and certified the EN ISO 14001 environmental management system.

Name and location of production site(s):

HET - Pragoelast sro

Na Cikánce 614/2

153 00 Praha - Radotín, CZ

Product information

Product name: Recycled rubber products for track construction

Product identification:

- ELTECPUR rail filler blocks
- ELTECPUR rail level crossing systems
- ELTECPUR rail mats
- ELTECPUR rail elastomer strips and plats for track construction

Product description:

- ELTECPUR rail filler blocks > for the insulation of tram tracks including switches. Used to minimise vibrations and noise and to comply with electrical requirements in accordance with DIN EN 50 122-2.
- ELTECPUR rail level crossing systems > for level crossing for railroads and streetcars.
- ELTECPUR rail mats > Structure-borne sound-reducing layer in light mass-spring systems under a concrete support slab on a sufficiently rigid and firm substrate or as a sub-ballast mat with a geotextile as a load distribution layer

- ELTECPUR rail elastomer strips and plats for track construction > for the insulation of track infrastructure like tracks and switches.

A detailed description of the product is available at <https://www.pragoelast.cz>; <https://het-group.com/de/>



UN CPC code: 36220 Unvulcanized compound rubber

Geographical scope:

The generic data used from the Ecoinvent database are used with validity for the Czech Republic (e.g. energy inputs) and in the event that data for the Czech Republic are not available, data valid for the EU or according to the location of the supplier 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:

The products are delivered in accordance with the standards indicated in the product description. The majority of products are transported on pallets and are suitably fixed (tapes, foils).

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 the average manufactured product.

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

Reference service life:

The reference lifetime is not declared. These are products with many different application purposes. The service life is expected to be about 20 years.

Time representativeness:

For specific data, the manufacturer's data for the **year 2023** is used. For generic data, data from the Ecoinvent database version 3.8 is 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.

Database(s) and LCA software used:

SimaPro calculation software, version 9.4 SimaPro Analyst, Ecoinvent database version 3.8.

Description of system boundaries:

b) Cradle to gate with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and additional modules). The additional modules may be one or more selected from A4–A5 and/or B1–B7.

Module A4 – transport to the construction site (from the construction phase) is used as an additional module.

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.

The construction phase includes the following modules:

- **A4** - transport to the construction site. Transport is carried out by truck with a capacity of 7.5 - 16 t (EURO 5). Transport of the declared product unit over a distance of 1 km is considered. The total value of transport to the construction site is obtained by multiplying the relevant indicator by the transported weight of the delivery (kg) and the distance of the construction site (km).

The end-of-life phase includes modules:

- **C1**, deconstruction, demolition; product from the building, including its dismantling or demolition, including the initial sorting of materials at the construction site. Decomposition and/or disassembly of the product is part of total disassembly. In this case, it is assumed that the impact on the environment is very small and can be neglected.
- **C2**, transport to the waste processing site; transportation of discarded product as part of waste processing, e.g. to a recycling site, and transportation of waste, e.g. to a final disposal site. The transport from the dismantled building is carried out by a truck with a capacity of 3.5 – 7,5 t (EURO 5) to the inert material dump as a demolition of a mixed building, estimated transport distance: 50 km to the recycling center or to the dump.

- **C3**, processing waste for reuse, recovery and/or recycling; e.g. collection of fractions of waste from deconstruction, and processing of waste from material flows intended for reuse, recycling and energy use. A scenario where 40% of the product is used for energy use is assumed. For the use of the products (together with other concrete products) as a recyclable material, 60% (treatment by crushing) is considered.
- **C4**, The scenario for this module is not considered in the calculations. The module is considered to have zero impacts.

Benefits and costs beyond the product system boundary are presented in module D.

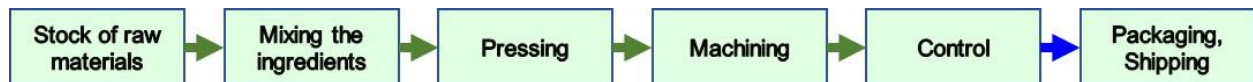
Module D includes:

- **D**, potential for reuse, recovery and/or recycling, expressed in terms of net impacts or benefits. In the module D scenario, the saving of primary raw material inputs (without considering transport and energy) in another product system (shredded rubber) is taken into account. Benefits from energy use are included.

The production of products takes place in the company's production area. Production is realized by mixing input components, suitable binders and subsequent pressing. After final processing, the products are ready for shipment.

System diagram:

The production process is shown schematically in the following diagram:



More information:

Information module **A5** from the construction phase was not included in the LCA due to the difficult availability of input data and is therefore not declared.

Information modules from the use phase **B1 to B7** are also not declared, as these types of products, assuming correct use, do not require maintenance, repair or replacement during the normal life time in the use phase. They also do not require energy or water consumption during the use phase.

For the study, all operational data related to the consumption of main and auxiliary materials for the production of the product, energy data, diesel consumption and the distribution of annual waste production and emissions according to plant records were taken. In terms of produced waste, only those wastes that are clearly related to production activities were included in the analysis.

The processes required for the installation of production equipment and the construction of infrastructure were not included in the analysis. Also, administrative processes are not included – inputs and outputs are balanced per production phase.

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	ND	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x
Geography	GLO	GLO, EU	EU, CZ	EU									EU	EU	EU	EU	GLO, EU
Specific data used	> 90 %					-	-	-	-	-	-	-	-	-	-	-	-
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
Granulate made out of tyres or cables	90-95	90-95	0
Binder	5-10	0	0
TOTAL	100	90-95	0
Packaging materials	Weight %	Weight-% (versus the product)	Biogenic carbon content in kg C/DU
LDPE film	< 5	0,01	0
Wooden pallets and spacers	95	0,033	1,1E-2
TOTAL	100	0,043	1,1E-2

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

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

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-fossil	kg CO ₂ ekv.	2,21E-01	2,14E-04	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,55E-02	2,16E-01	0,00E+00	-2,72E+00
GWP-biogenic	kg CO ₂ ekv.	-2,25E-02	1,95E-07	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,59E-05	1,23E-04	0,00E+00	-1,09E-02
GWP- luluc	kg CO ₂ ekv.	1,81E-04	1,01E-07	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,52E-05	1,01E-04	0,00E+00	-1,25E-03
GWP - total	kg CO₂ ekv.	1,99E-01	2,15E-04	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,55E-02	2,16E-01	0,00E+00	-2,71E+00
ODP	kg CFC 11 ekv.	2,39E-08	4,82E-11	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,56E-09	6,37E-09	0,00E+00	-3,89E-07
AP	mol H ⁺ ekv.	8,09E-04	8,52E-07	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,93E-05	8,96E-04	0,00E+00	-8,30E-03
EP-freshwater	kg P ekv.	1,24E-04	1,61E-08	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,37E-06	3,57E-04	0,00E+00	-5,00E-04
EP- marine	kg N ekv.	1,87E-04	2,48E-07	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,72E-05	2,13E-04	0,00E+00	-1,28E-03
EP - terrestrial	mol N ekv.	1,76E-03	2,71E-06	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,97E-04	1,51E-03	0,00E+00	-1,38E-02
POCP	kg NMVOC ekv.	5,62E-04	8,33E-07	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,28E-05	4,01E-04	0,00E+00	-6,67E-03
ADP- minerals& metals*	kg Sb ekv.	6,51E-07	9,77E-10	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,58E-07	1,66E-07	0,00E+00	-2,92E-05
ADP-fossil*	MJ	4,48E+00	3,20E-03	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,79E-01	3,73E+00	0,00E+00	-4,62E+01
WDP*	m ³	7,06E-02	1,06E-05	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,47E-03	3,85E-02	0,00E+00	-1,16E+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; GWP-total (highlighted in color) - represents the important impact of the product on climate change															

* 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.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM	Disease incidence	9,62E-09	1,60E-11	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,61E-09	1,71E-09	0,00E+00	-1,04E-07
IRP	kBq U235 ekv.	4,45E-02	1,70E-05	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,11E-03	1,06E-01	0,00E+00	-2,99E-01
ETP- fw	CTUe	2,52E+00	2,61E-03	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,32E-01	9,07E-01	0,00E+00	-2,88E+01
HTP-c	CTUh	9,15E-11	9,54E-14	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,40E-11	2,80E-11	0,00E+00	-8,92E-10
HTP- nc	CTUh	2,13E-09	2,64E-12	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,29E-10	1,07E-09	0,00E+00	-1,86E-08
SQP	dimensionless	2,66E+00	1,89E-03	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,85E-01	5,61E-01	0,00E+00	-7,82E+00
Acronyms	<p>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 CO₂ 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</p>															

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.

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	4,90E-01	5,40E-05	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,05E-03	1,61E-01	0,00E+00	-2,05E+00
PERM	MJ	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,90E-01	5,40E-05	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,05E-03	1,61E-01	0,00E+00	-2,05E+00
PENRE	MJ	4,78E+00	3,40E-03	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,02E-01	3,95E+00	0,00E+00	-4,91E+01
PENRM	MJ	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	4,78E+00	3,40E-03	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,02E-01	3,95E+00	0,00E+00	-4,91E+01
SM	kg	8,65E-01	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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

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	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Non-hazardous waste disposed	kg	7,27E-02	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Radioactive waste disposed	kg	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	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	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	6,00E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	3,34E-03	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,00E-01
Exported energy, electricity	MJ	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,36E-01
Exported energy, thermal	MJ	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,26E+00

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

Additional environmental information

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)
- TNI CEN/TR 15941:2012 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),
- SimaPro LCA Package, Pré Consultants, the Netherlands, www.pre-sustainability.com
- Ecoinvent Centre, www.Ecoinvent.org
- Explanatory documents are available from the head of Technical Support of the EPD owner.