ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025 and EN 15804:2012+A2:2019

1m² of High Pressure Laminates

EPD Registration Number	S-P-06473
Publication Date	2023-01-02
Validity Date	2028-01-01
Geographical Scope	India

1 INTRODUCTION

Stylam Industries Limited (Stylam) is the pioneer manufacturer in the laminates industry. Stylam manufactures laminates using chemical, paper (virgin and majorly recycled) and use plastic and wooden pallets as packaging products. They adopt the modern manufacturing technology to produce high quality laminates which makes them a global brand. The facilities are equipped with fully automated machines from reputed European and Indian vendors to produce the superior quality high pressure laminates. They hold the capacity of not only producing the best quality product but also the different size ranges of products including the range of Laminates, PreLam Boards, Exterior Cladding and Acrylic Solid Surface, to name a few.

Stylam offers widest selection of patterns and finishes available to match the customer interest using premium and high-quality standards materials i.e. 1500+ Designs, 150+ Textures & Finishes. The company was established in 1991 and subsequently listed in Bombay stock exchange after 4 years. Stylam is Asia's largest manufacturing facility of High pressure laminates. Regarding sustainability, they are concerned about preserving the environment and enhancing the quality of life for the future generations.

High Pressure Laminates (HPL) is a laminate predominantly used as construction product. HPL is manufactured by saturating multiple layers of papers with phenolic resin. Stylam manufactures various thicknesses high pressure laminates ranging from 6mm to 12mm.
Life Cycle Assessment for 1 m^2 of HPL as per the standards ISO 14040:2006 (and its amendment 14040:2006/Amd1:2020), ISO 14044:2006 (and its amendments 14044:2006/Amd1:2018 and 14044:2006/Amd 2:2020) along with EN15804-A2:2019 (Core rules for the product category of construction products) had been considered.

The reference period for the data used within this EPD is October 2021 to September 2022.
The geographical scope of this EPD is India.
The LCA model was created using the GaBi 10.6 Software system for life cycle engineering, developed by Sphera

2 GENERAL INFORMATION

2.1 EPD, PCR, LCA Information

Table 1: EPD Information

Programme	The International EPD® System www.environdec.com	
Program operator	EPD International AB Box 210 60, SE-100 31 Stockholm, Sweden.	Indian Regional Hub www.envirodecindia.com
Declaration holder[1]	Mr. Sachin Bhatla Stylam Industries Limited SCO 14, Sector 7C, Madhya Marg, Chandigarh Chandigarh, India, Pin code: 160 019 Email- sachinbhatla@stylam.com Website: https://stylam.com/	
Product	High Pressure Laminates (HPL)	
CPC Code	314	
EPD registration number	S-P-06473	
Publication date	2023-01-02	
Validity date	2028-01-01	
Geographical scope	India	
Reference standards	ISO 14025:2006, ISO 14040/44, EN 15804:2012 +A2:2019	

Table 2: PCR Information

Reference PCR	PCR CONSTRUCTION PRODUCTS' Version 1.2.5, 2019:14
Date of Issue	2022-07-08

Table 3: Verification Information

Demonstration of verification	External, independent verification
Third party verifier	Mr. Prabodha Acharya Independent verifier Mumbai, India prabodha.acharya@gmail.com

Table 4: LCA Information

Title	Environmental Product Declaration of High Pressure Laminates
Preparer	Dr. Rajesh Kumar Singh thinkstep Sustainability Solutions - a Sphera Company 707, Meadows, Sahar Plaza, Andheri Kurla Road, Andheri East, Mumbai - 400059, India, Email: rsingh@sphera.com

[1] EPD owner has the sole ownership, liability, and responsibility for the EPD

2.2 Reference Period of EPD Data

The reference period for the data used within this EPD is October 2021 to September 2022.

2.3 Geographical Scope of EPD Application

The geographical scope of this EPD is India.

2.4 Additional Information about EPD

This EPD provides information concerning the production of HPL manufactured at Stylam Industries Limited. Product Category Rules (PCR) for the assessment of the environmental performance of High Pressure Laminates is 'Construction products, 2019:14, version 1.2.5' and complying with the standard EN 15804. Product classification is UN CPC 314 Boards and panels 2013:02 Version 1.02. This PCR is applicable to the product "High Pressure Laminates". EPD of construction products may not be comparable if they do not comply with EN15804. The environmental impacts were calculated based on the functional unit wherein each flow related to material consumption, energy consumption, emissions, is scaled to the reference flow.

3. Product Description and System Boundaries

3.1 Product Identification and Usage

HPL is a composite material composed of papers and resins. The product is made by the saturation of multiple layers of paper with phenolic resin. The HPL production share of each of the thicknesses is presented in Table 3-1 during the reference period of the data.

Table 3-1 Production Volume as per thickness

Grade	% Contribution
6 mm	75%
8 mm	5%
10 mm	5%
12 mm	15%

3.2 System boundaries

The environmental analysis is conducted as a 'Cradle to Gate' Life Cycle Assessment (LCA) with options, detailed in the below-mentioned life cycle phases, in the production of HPL including raw material extraction, transport, manufacturing, followed by end-of-life stage.

Table 3-2 System Boundary and Product Stages

EPD Module	Life Cycle Stages	Life Cycle Sub-stages	Definitions
A1	Materials	Primary raw material production	Raw materials: chemicals and paper
A2	Upstream Transport	-	Transport of raw material to the manufacturing site
A3	Manufacturing		Manufacturing of final product
A5	Installation	-	Treatment of packaging materials

C2	Transport	-	With a collection rate of 100%, the transports are carried out by truck over 50 km
C3	Waste Processing		Incineration is preferred for product, cutting wastes and packaging waste
C4	Disposal		Landfilling of the product
D	EOL Credit	-	Credits from incineration are taken

Exclusions:

Table 3-3: Activities outside the scope of the LCA

Activity	Reason for exclusion
Maintenance and operation of equipment	It is expected that these impacts will be very small when allocated across the full production.
Installation of the equipment	Installed equipment for cutting, cooling and drying chambers
Human labor and employee transport	These aspects are not the central focus of the LCA and are not easily attributable to product impacts
Use phase of the product	No maintenance/consumption during use phase

4. LCA

4.1 Information Sources and Data Quality

It is important that data quality is in accordance with the requirements of the declaration's goal and scope. This is essential to the reliability of the declaration and achievement of the intended application. The quality of the LCI data for modelling the life cycle stages have been assessed according to ISO 14044 (ISO, 2006b). Data quality is judged by its quality (measured, calculated or estimated), completeness (e.g. are there unreported emissions), consistency (degree of uniformity of the methodology applied on a study serving as a data source) and representativeness (geographical, time period, technology). To cover these requirements and to ensure reliable results, first-hand industry data in combination with consistent, upstream LCA information is used. The datasets have been used in LCA-models worldwide for several years in industrial and scientific applications for internal as well as critically reviewed studies. In the process of providing these datasets, they have been cross-checked with other databases and values from industry and science.
Stylam Industries Limited provided accurate and representative data for HPL production. For all data requirements, primary data were used where possible, and finally upstream LCA data from GaBi 10.6 professional database was used.

4.2 Methodological Details

4.2.1 Declared unit

The declared unit for the EPD is 1m² of HPL product.

4.2.2 Selection of application of LCIA categories

A list of relevant impact categories indicators is defined and associated with the inventory data. The methods that have been selected for evaluation of environmental impacts are mentioned in (Table 4-1). These indicators are scientifically and technically valid.

The environmental impact per declared unit for the following environmental impact categories were reported in the EPD according to the mentioned PCR in modular format of A-D. EN 15804:2012+A2:2019. The same has been used and documented below.

Table 4-1 Environmental Impacts Indicators for EN15804+A2:2019

Impact category	Indicator	Unit
Climate change – total	Global Warming Potential total (GWP-total)	kg CO_2 eq.
Climate change - fossil	Global Warming Potential fossil fuels (GWP-fossil)	kg CO_2 eq.
Climate change - biogenic	Global Warming Potential biogenic (GWP-biogenic)	kg CO_2 eq.
Climate change - luluc	Global Warming Potential land use and land use change (GWP-luluc)	kg CO_2 eq.
Ozone Depletion	Depletion potential of the stratospheric ozone layer (ODP)	kg CFC-11 eq.
Acidification	Acidification potential, Accumulated Exceedance (AP)	Mole of H+ eq.
Eutrophication aquatic freshwater	Eutrophication potential, fraction of nutrients reaching freshwater end compartment (EP-freshwater)	kg P eq.
Eutrophication aquatic marine	Eutrophication potential, fraction of nutrients reaching marine end compartment (EP-marine)	kg N eq.
Eutrophication terrestrial	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	Mole of N eq.
Photochemical ozone formation	Formation potential of tropospheric ozone (POCP)	kg NMVOC eq.
Depletion of abiotic resources - minerals and metals	Abiotic depletion potential for non-fossil resources (ADP- minerals & metals)	kg Sb eq.
Depletion of abiotic resources - fossil fuels	Abiotic depletion for fossil resources potential (ADP-fossil)	MJ
Water use	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	m^3 world equiv.

Table 4-2 Resources Use Parameters

Parameter	Unit
Renewable primary energy as energy carrier (PERE)	MJ
Renewable primary energy resources as material utilization (PERM)	MJ
Total use of renewable primary energy resources (PERT)	MJ
Non-renewable primary energy as energy carrier (PENRE)	MJ
Non-renewable primary energy as material utilization (PENRM)	MJ
Total use of non-renewable primary energy resources (PENRT)	MJ
Use of secondary material (SM)	kg

Use of renewable secondary fuels (RSF)	MJ
Use of non-renewable secondary fuels (NRSF)	MJ
Net freshwater Use (FW)	m^3

Table 4-3 Output flows and waste categories parameters

Parameter	Unit
Hazardous waste disposed (HWD)	kg
Non-hazardous waste disposed (NHWD)	kg
Radioactive waste disposed (RWD)	kg
Components for re-use (CRU)	kg
Materials for recycling (MFR)	kg
Materials for energy recovery (MER)	kg
Exported electrical energy (EEE)	MJ
Exported thermal energy (EET)	MJ

Table 4-4 Biogenic carbon content

Parameter	Unit
Biogenic carbon content in product	Kg
Biogenic carbon content in packaging	Kg

Table 4-5 Additional Parameters

Impact category	Indicator	Unit
Particulate matter emissions	Potential incidence of disease due to PM emissions (PM)	Disease incidences
Ionising radiation	Potential Human exposure efficiency relative to U235 (IRP)	kBq U235 eq.
Eco-toxicity (freshwater)	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	CTUe
Human toxicity, cancer effects	Potential Comparative Toxic Unit for humans (HTP-c)	CTUh
Human toxicity, non-cancer effects	Potential Comparative Toxic Unit for humans (HTP-nc)	CTUh
Land use related impacts/ Soil quality potential	Potential soil quality index (SQP)	Pt

4.3 Cut-off Criteria

No cut-off criteria are defined for this study. The system boundary was defined based on relevance to the goal of the study. For the processes within the system boundary, all available energy and material flow data have been included in the model.

4.4 Allocation

No allocation has been done. As no co-products are produced, the flow of materials and energy and the associated release of substances and energy into the environment is related exclusively to the product manufactured.

4.5 System Boundaries

The system boundary for HPL represents a Cradle-to-Gate with options, which covers production and End of life phase. The production phase includes the raw material extraction, upstream transportation, manufacturing process of the final product. End of life phase includes incineration of the product.

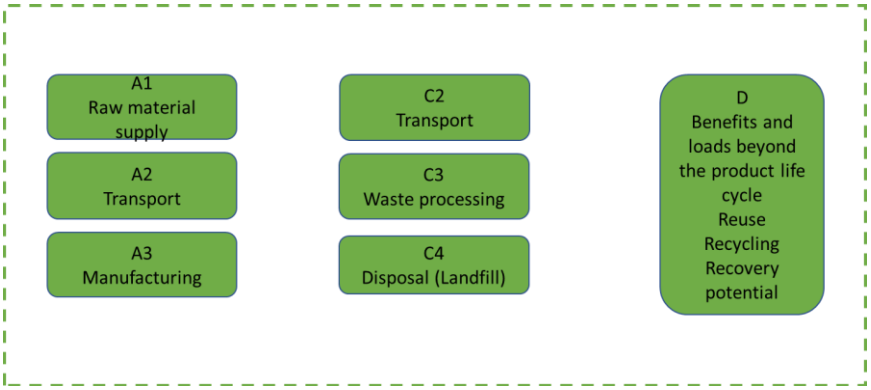

Figure 4 -1 System boundary included in the study

4.5.1 Geographic System Boundaries

The geographical coverage of the study covers manufacturing in India. Country specific boundaries wherever possible have been adapted and others dataset were chosen from EU and GLO if no regional datasets were available.

4.5.2 Temporal System Boundaries

The data collection is related to one year of operation and the year of the data is indicated in the questionnaire for each data point. The majority of data was derived for the year 2021-22 (October 2021 to September 2022) and is believed to be representative of production of HPL in India.

4.5.3 Technology coverage

The exact technological configuration was used for the HPL product for minimizing environmental impacts. It was assumed that secondary data from databases that were used for this assessment, were temporally and technologically comparable to that of primary data and within the temporal coverage already addressed.

4.6 Software and database

The LCA model was created using the GaBi 10.6 Software system for life cycle engineering, developed by Sphera Solutions. The GaBi database provides the life cycle inventory data for several of the raw and process materials obtained from the upstream system. Detailed database documentation for GaBi datasets can be accessed at http://www.ga- bi-software.com/international/support/gabi/gabi-database-2021-lci-documentation.

4.7 Comparability

According to the standards, EPDs do not compare the environmental performance of products in the sector. Any comparison of the declared environmental performance of products lies outside the scope of these standards and is suggested to be feasible only if all compared declarations follow equal standard provisions.
"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 characterization factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025."

4.8 Results

Modules of the life cycle included as per PCR is given in Table 4-6.

Table 4-6 Modules of Production life cycle included (X= Declared Module; MND = Module not declared)

Production			Installation		Use Stage							End of Life				Next Product System
Raw material supply (extrac-tion, processing, recycled mate-rial)	Transport to manufacturer	Manufacturing	Transport to site	Treatment of packaging products	Use / application	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Demolition	Transport to EoL	Incineration	Disposal	Credits from incineration
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	X	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X

4.8.1 LCIA and LCI Result for 6mm HPL

The LCIA results for 1 m² of 6 mm HPL are given in Table 4-7 to Table 4-11.

Table 4-7 Environmental impacts for 1 m² of 6mm HPL

Environmental impact indicators	Unit	A1-A3	A5	C2	C3	C4	D
Climate Change - total	kg CO_2 eq.	6.76E-01	1.19E+00	4.00E-02	1.56E+01	0.00E+00	-4.47E+00
Climate Change, fossil	kg CO_2 eq.	1.07E+01	1.16E-01	3.80E-02	2.93E-01	0.00E+00	-4.45E+00
Climate Change, biogenic	kg CO_2 eq.	-1.01E+01	1.08E+00	2.00E-03	1.53E+01	0.00E+00	-2.30E-02
Climate Change, land use and land use change	kg CO_2 eq.	8.85E-02	3.24E-06	1.13E-06	3.31E-05	0.00E+00	-4.98E-04
Ozone depletion	kg CFC -11 eq.	8.09E-11	9.93E-14	2.16E-15	1.32E-12	0.00E+00	-3.08E-11
Acidification	Mole of H+ eq.	5.67E-02	1.66E-04	5.96E-05	7.50E-03	0.00E+00	-5.93E-03
Eutrophication, freshwater	kg P eq.	1.22E-04	2.40E-08	8.25E-09	3.43E-07	0.00E+00	-6.25E-06
Eutrophication, marine	kg N eq.	1.71E-02	5.36E-05	1.36E-05	3.55E-03	0.00E+00	-1.60E-03
Eutrophication, terrestrial	Mole of N eq.	1.55E-01	7.88E-04	1.52E-04	4.12E-02	0.00E+00	-1.71E-02
Photochemical ozone formation, human health	kg NMVOC eq.	4.50E-02	1.46E-04	4.14E-05	9.15E-03	0.00E+00	-4.47E-03
Resource use, mineral and metals	kg Sb eq.	1.48E-06	2.42E-09	7.87E-10	3.48E-08	0.00E+00	-6.82E-07
Resource use, fossils	MJ	2.35E+02	2.62E-01	5.21E-01	4.28E+00	0.00E+00	-7.58E+01
Water use	m³ world equiv.	1.62E+00	1.22E-01	1.24E-04	1.51E+00	0.00E+00	-4.84E-01

Table 4-8 Resource use Indicators for 1 m^2 of 6mm HPL

Resource use indicators	Unit	A1-A3	A5	C2	C3	C4	D
Use of renewable primary energy (PERE)	MJ	9.95E+01	9.06E+00	2.52E-03	1.04E+02	0.00E+00	-2.08E+01
Primary energy resources used as raw materials (PERM)	MJ	1.12E+02	-9.00E+00	0.00E+00	-1.03E+02	0.00E+00	0.00E+00
Total use of renewable primary energy resources (PERT)	MJ	2.12E+02	6.16E-02	2.52E-03	8.21E-01	0.00E+00	-2.08E+01
Use of non-renewable primary energy (PENRE)	MJ	2.33E+02	1.95E+00	5.21E-01	4.28E+00	0.00E+00	-7.54E+01
Non-renewable primary energy resources used as raw materials (PENRM)	MJ	1.68E+00	-1.68E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of non-renewable primary energy resources (PENRT)	MJ	2.35E+02	2.62E-01	5.21E-01	4.28E+00	0.00E+00	-7.54E+01
Input of secondary material (SM)	kg	1.89E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels (RSF)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels (NRSF)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water (FW)	m^3	6.14E-02	2.87E-03	4.22E-06	3.57E-02	0.00E+00	-2.00E-02

Table 4-9 Waste Categories and other Indicators for 1 m^2 of 6mm HPL

Output flows and waste categories	Unit	A1-A3	A5	C2	C3	C4	D5
Hazardous waste disposed (HWD)	kg	1.38E-06	2.48E-11	1.79E-12	5.34E-10	0.00E+00	-1.02E-08
Non-hazardous waste disposed (NHWD)	kg	2.56E-01	1.68E-02	7.82E-06	1.10E-01	0.00E+00	-3.82E-02
Radioactive waste disposed (RWD)	kg	2.44E-03	1.48E-05	1.18E-07	2.00E-04	0.00E+00	-5.97E-03
Components for re-use (CRU)	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for Recycling (MFR)	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for Energy Recovery (MER)	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported electrical energy (EEE)	MJ	5.11E-01	1.75E+00	0.00E+00	1.78E+01	0.00E+00	0.00E+00
Exported thermal energy (EET)	MJ	9.08E-01	3.14E+00	0.00E+00	3.16E+01	0.00E+00	0.00E+00

Table 4-10 Biogenic carbon content for 1 m^2 of 6mm HPL

Biogenic carbon content	Units	A1-A3	A5	C2	C3	D
Biogenic carbon content in product [kg]	kg	2.61E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content in packaging [kg]	kg	2.28E-01	0.00E+01	0.00E+00	0.00E+00	0.00E+00

Table 4-11: Additional Parameters for 1 m^2 of 6mm HPL

Output flows and waste categories	Unit	A1-A3	A5	C2	C3	C4	D
Optional indicators detailed							
Particulate matter	Disease incidences	9.64E-07	9.07E-10	4.37E-10	2.23E-08	0.00E+00	-4.91E-08
Ionising radiation, human health	kBq U235 eq.	3.88E-01	2.00E-03	1.10E-05	3.20E-02	0.00E+00	-1.03E+00
Ecotoxicity, freshwater	CTUe	1.93E+03	1.26E-01	1.89E-01	1.59E+00	0.00E+00	-1.70E+01
Human toxicity, cancer	CTUh	5.43E-08	8.24E-12	3.21E-12	1.04E-10	0.00E+00	-7.68E-10
Human toxicity, non-cancer	CTUh	2.38E-07	3.86E-10	1.07E-10	3.84E-09	0.00E+00	-2.95E-08
Land Use	Pt	1.39E+03	7.60E-02	2.00E-03	1.01E+00	0.00E+00	-1.38E+01

4.8.2 Factors for other results (as per thickness)

Table 4-12 Factors for thickness 8mm, 10mm and 12 mm

Dimension of HPL	Factor (Result)
8mm_Stylam_HPL	1.08
10mm_Stylam_HPL	1.61
12mm_Stylam_HPL	2.41

4.9 Interpretation

The interpretation of the results of 1 m^2 of 6mm HPL are presented in Table 4-13.

4-13 Interpretation of most significant contributors to life cycle parameters (1m^2 of 6 mm HPL)

Parameter		Most significant contributor
Acidification Potential (AP)		**The total Acidification Potential (AP) is 0.058 kg SO_2-Equivalent. The contribution by the product stage including installation stage is 97%, incineration of product is 1% and the credit from the end-of-life stage is 5%.**
Eutrophication Potential (EP)		**The total Eutrophication potential (EP) is 1.17E-04 kg N eq. The product stage including its installation stage contributes 104%, incineration of product contributes 1% while the credit from end-of-life stage is 5%.**
Global Warming Potential (GWP 100 years)		**The total Climate change (GWP) is 13.066 kg CO_2 eq. The product phase including installation contributes 14%, incineration of HPL product contributes 120% while the credit from the end-of-life is 34%. In the product stage, the maximum GWP impact is from the chemicals predominantly phenol (4.52 kg CO_2 eq.) and formaldehyde (1.99 kg CO_2 eq.) while the recycled paper provides credit of 6.15 kg CO_2 eq.**
Photochemical Ozone Creation Potential (POCP)		**The Photochemical ozone creation potential (POCP) is 0.05 kg NMVOC eq. The contribution in the product stage including its installation is 91%, incineration of HPL is 18 while the credit from end-of-life is 9%.**
Abiotic depletion potential (ADP) - Fossil		**The total resource use fossil is 223 MJ. The use in the product phase including installation is 143%, end of life of product is 3% while the credit from the end of life is 46%.**

Concluding, the study provides fair understanding of environmental impacts during the various life cycle stages of HPL production. It also identifies the hot spots in the value chain where improvement activities can be prioritised and accordingly investment can be planned. The scope covers the ecological information to be divided into raw material production (A1), transportation (A2) and Manufacturing (A3) along with the end of life (C1-C4).

5. LCA Terminology

Cradle to Gate	**Scope of study extends from mining of naturalresources to the completed product ready for shipping from the manufacturing dispatch "gate", known as Modules A1-A3.**
Cradle to Grave	**Scope of study extends from mining of naturalresources to manufacture, use and disposal of products at End of Life, including all Modules A-D.**
End of life	**Post-use phase life cycle stages involving collection and processing of materials (e.g., scrap) and recyclingor disposal, known as Modules C and D.**

6. Other Environmental Information

The constituent materials used within our products are responsibly sourced and we apply the principles of Sustainable Development and of Environmental Stewardship as a standard business practice in our operations. Protecting the environment by preserving non-renewable natural resources, increasing energy efficiency, reducing the environmental emissions, limiting the impact of materials transportation to and from our operations is part of our way in doing business.
Products do not contain any substances that can be included in "Candidate List of Substances of Very High Concern for Authorization" and raw materials used are not part of the EU REACH regulation.

7. References

- GaBi 10.6_2022: Dokumentation der GaBi-Datensätze der Datenbank zur Ganzheitlichen Bilanzierung. LBP, Universität Stuttgart und Sphera Solutions Pvt Ltd GmbH
- GaBi 10_2022: Software und Datenbank zur Ganzheitlichen Bilanzierung. LBP, Universität Stuttgart und Sphera Solutions Pvt Ltd GmbH
- ISO 14020:2000 Environmental labels and declarations - General principles
- ISO 14025:2006 Environmental labels and declarations - Type III environmental declarations - Principles and procedures
- ISO 14040:2006 Environmental management- Life cycle assessment - Principles and framework
- ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines
- PCR 2019:14, Product Category Rules (PCR) for 'CONSTRUCTION PRODUCT' Version 1.2.5