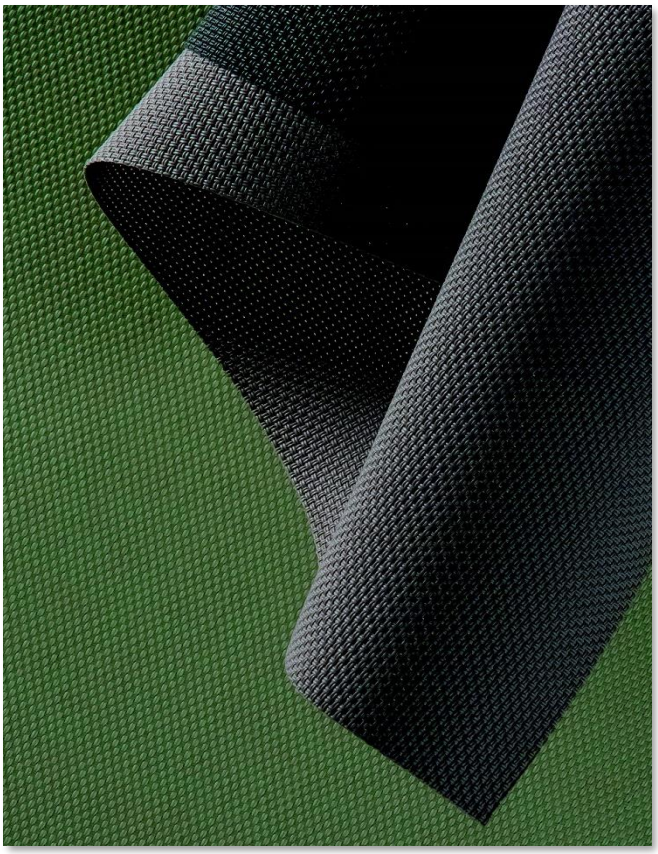
Environmental Product Declaration

In accordance with ISO 14025 and EN 15804

polyscreen
FABRICS THAT WORK



Registration number: S-P-01098	Version: 2
Issue date: 2018-02-05	Reference PCR used for EPD: 2012:01 Construction products and construction services v 2.3
Revision date: 2019-06-06	UN CPC code: 369
Valid until: 2024-06-06	Scope: Global

vertisol
contemporary weavers

Content

1. General Information

Table 1. General Information.

EPD® PROGRAM HOLDER	The International EPD® System operated by EPD® international AB www.environdec.com Box 210 60 SE-100 31 Stockholm, Sweden
PRODUCT CATEGORY RULES (PCR)	CEN standard EN 15804 served as the core PCR PCR 2012:01 version 2.3 Construction products and construction services. Valid until 2020-03-03. This PCR covers products within the group UN CPC 369: *Other plastic products* and underlying classes and subclasses for construction products.
GENERIC PCR REVIEW CONDUCTED BY	Technical committee of the International EPD® System Chair Massimo Morano Contact via info@environdec.com
INDEPENDENT VERIFICATION	☐ Internal ☒ External
THIRD PARTY VERIFIER	Elisabet Amat, Email: eli.amat@tecnaliacertificacion.com Tecnalia R&I Certificación, S. L. www.tecnaliacertificacion.com Accredited by: Acreditation no. 125/C-PR283 by ENAC
ACCREDITED OR APPROVED BY	The International EPD® System
OWNER OF THE DECLARATION	POLYSCREEN® IS A BRAND OF VERTISOL INTERNACIONAL, SRL Vertisol Internacional S.R.L. C-17, 18, 08403 Granollers (Spain) Phone: +34 93 840 14 44 Email: mkt@vertisol.es Website: http://en.vertisol.es/
GEOGRAPHICAL SCOPE OF THE EPD®	Global
REGISTRATION NUMBERS	S-P-01098
ISSUE DATE	2018-02-05
REVISION DATE	2019-06-06
VALID TO	2024-06-06
VERSION	2

2. Company

Since 1982, Vertisol Internacional SRL engages in the creation and development of window covering solutions. At our facilities, fabrics are produced 100% in-house.

While in Barcelona Vertisol specializes in the manufacture of coated fabrics, POLYSCREEN® production commences at our plant in Galicia, where warp and weft yarns are produced and woven.

Sustainability, performance, design and comfort are the main features of Vertisol fabrics, either for solar protection, wall and floor coverings, upholstery or acoustic solutions.

3. Product

3.1. Product description and use

POLYSCREEN® fabrics are resistant products ideal for both contract and residential use. POLYSCREEN® fabrics are made of vinyl-coated high-tenacity polyester yarns, which are used to make a wide range of products, from textile architecture structures to automobile safety belts.

By choosing different transparency levels, weaving patterns and colors from the POLYSCREEN® collection, optimal control of light and energy for each façade orientation can be achieved.

POLYSCREEN® fabrics are flexible and strong and the ideal choice to preserve the architectural identity of a building. They are **phthalate-free,** durable and recyclable, and meet the strictest flame retardancy standards.

Further information from POLYSCREEN® is available at www.vertisol.es/ambitos/shade-fabrics/POLYSCREEN

This EPD® is valid for the following POLYSCREEN® ranges:

- POLYSCREEN® 351: the results are also valid for POLYSCREEN® 501 since their life cycle environmental impact differs less than 10%.
- POLYSCREEN® 314: the results are also valid for POLYSCREEN® Bali since their life cycle environmental impact differs less than 10% (results shown in annex I).
- POLYSCREEN® 350 (results shown in annex II).
- POLYSCREEN® 475: the results are also valid for POLYSCREEN® 503, 365, 473 and 403 since their life cycle environmental impact differs less than 10% (results shown in annex III).
- POLYSCREEN® 550: the results are also valid for POLYSCREEN® 597 and 650 since their life cycle environmental impact differs less than 10% (results shown in annex IV).
- POLYSCREEN® 365 SRC (results shown in annex V).
- POLYSCREEN® 473 SRC (results shown in annex VI).

3.2. Content of Materials and Chemical substances

POLYSCREEN® woven vinyl fabric is made of high tenacity polyester yarn coated with phthalate free PVC.

Figure 1. POLYSCREEN® production.

Although the composition of POLYSCREEN® is proprietary and cannot be published, a detailed product breakdown has been used in the Life Cycle Assessment included in this EPD®. Following is an approximation of main components:

Table 2. POLYSCREEN® Composition.

	COMPONENT	% IN TOTAL WEIGHT
YARN	Vinyl	75% – 85%
	Polyester	15% – 25%

3.3. Use, Environmental & Health information

The proper use of the described products is not-hazardous to water, air and soil. It is inert in its proper use. No damage to health is expected under normal use. POLYSCREEN® is REACh compliant since it does not contain any substance listed in the "Candidate List of Substances of Very High Concern (SVHC) for authorization" in a content exceeding 0.1% of the weight of the product). POLYSCREEN® fabrics are also GREENGUARD certified and contribute to the creation of healthier indoor environments.

LCA for POLYSCREEN® has been conducted according to EN 15804+A1 and supplemented with health and quality information.

This document is intended to provide accessible, accurate and comparable information on the environmental and health performance of a finished product, defined by its functional unit. It also determines the contribution of POLYSCREEN® to the control of health risks and quality of life inside a building.

Table 3. Assessment of health risks and product's contribution to standards of living inside buildings.

ASSESSMENT OF HEALTH RISKS	**SANITARY QUALITY OF WATER**	This is not applicable, as the product is not in contact with water used for human consumption, or with runoff water, infiltration water, water table or surface water.
QUALITY OF LIFE	Hygrothermal comfort	POLYSCREEN® contributes to thermal comfort by filtering incident solar radiation.
	Acoustic comfort	POLYSCREEN®351 and 501 weighted sound absorption coefficients AlphaW are respectively 0.50 and 0.45 according to EN ISO 10534
	Visual comfort	The POLYSCREEN® product range offers colors with a low reflection coefficient, which contributes to visual comfort in the building. POLYSCREEN® filters light and UV radiation and avoids glare.
	Olfactory comfort	Odor emissions have been quantified according to PV 3900 standard, determined as not relevant if used inside a vehicle.
	Antibacterial activity	Inhibition of bacterial growth according to ASTM E 2180-07(2012). Antifungal activity according to ASTM G21:2013.

Moreover, POLYSCREEN® is:

- Phthalate-free: Phthalates are plasticizers that increase PVC flexibility. Their toxicity at different degrees has been reported. The POLYSCREEN® range is phthalate-free since 2014.
- GREENGUARD: POLYSCREEN® is GREENGUARD certified for its low emission level of volatile substances, which guarantees indoor air quality.
- REACh Compliance validated with ISO 14001 certification.

3.4. Reference service life (RSL)

POLYSCREEN® fabrics are very durable products, created to withstand the most demanding environments. The minimum life expectancy is 10 years. No repair, renewal or replacement is necessary during this lifetime.

4. LCA: Calculation rules

4.1. Declared unit

The declared unit is the manufacturing, transportation to customer, installation, use and end of life of 1 m^2 of packed POLYSCREEN® fabric.

4.2. System boundaries

The scope for the EPD® is “cradle-to-gate” with options (A1-A3, A4, A5, B1-B7 and C1-C4 stages included).

- **Product stage (A1-A3):** it includes raw materials manufacturing, its transportation to the manufacturing plant, energy consumption and waste production in the manufacturing plant.

- **Construction stage (A4-A5):**

  A4 Transport: once packaged, the product is sent to the user. POLYSCREEN® transport has been calculated on the basis of a scenario with the parameters described in the following table.

PARAMETER	VALUE/DESCRIPTION
FUEL TYPE AND CONSUMPTION OF VEHICLE OR VEHICLE TYPE USED FOR TRANSPORT E.G. LONG DISTANCE TRUCK, BOAT, ETC.	Average truck trailer with a 24t payload, diesel consumption 38 liters for 100 km
DISTANCE	2.178 km
CAPACITY UTILISATION (INCLUDING EMPTY RETURNS)	% assumed in Ecoinvent v 3.3
BULK DENSITY OF TRANSPORTED PRODUCTS	629 g/m^2 (packaging included)
VOLUME CAPACITY UTILISATION FACTOR	1

A5 Installation: no material is used during the installation. Packaging waste management has been taken into account.

PARAMETER	VALUE/DESCRIPTION
ANCILLARY MATERIALS FOR INSTALLATION	None
WATER USE	None
OTHER RESOURCE USE	None
QUANTITATIVE DESCRIPTION OF ENERGY TYPE	None
WASTAGE OF MATERIALS ON THE BUILDING SITE BEFORE WASTE PROCESSING, GENERATED BY THE PRODUCT'S INSTALLATION (SPECIFIED BY TYPE)	57 g cardboard 2 g packaging film 1 g polypropylene
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)	Packaging wastes are 100 % collected and modeled as recycled matter Any product loss during the installation
DIRECT EMISSIONS TO AMBIENT AIR, SOIL AND WATER	No direct emissions during the installation

- **Use stage (B1-B7):** the product does not need any maintenance or replacement. As a consequence, this stage has not any impact.
- **End of life stage (C1-C4):** this stage includes the next modules:

C1 Deconstruction/demolition

Any impact occurs during the deconstruction of the product.

C2 Transport to waste processing

The distance transport is 50 km.

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.

PARAMETER	VALUE/DESCRIPTION
COLLECTION PROCESS SPECIFIED BY TYPE	The entire product surfacing is collected alongside any mixed construction waste 569 g of POLYSCREEN® 351/501 (collected with mixed construction waste)
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	569 g of POLYSCREEN® 351/501 (100%) are landfilled
ASSUMPTIONS FOR SCENARIO DEVELOPMENT (E.G. TRANSPORTATION)	It is assumed that the waste going to landfill will be transported by truck with 24 tons payload, using diesel as a fuel consuming 38 liters per 100km. Distance: 50 km

The table below describes the scope of the inventory performed in the LCA according to PCR 2012:01 version 2.3 Construction products and construction services.

Table 4. Scope of the inventory according to PCR 2012:01 version 2.3 Construction products and construction services.

Product stage			Construction process stage		Use stage							End of stage				Resource recovery stage
Raw materials	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
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	MND

X: Module accounted for MND: Module Not Declared

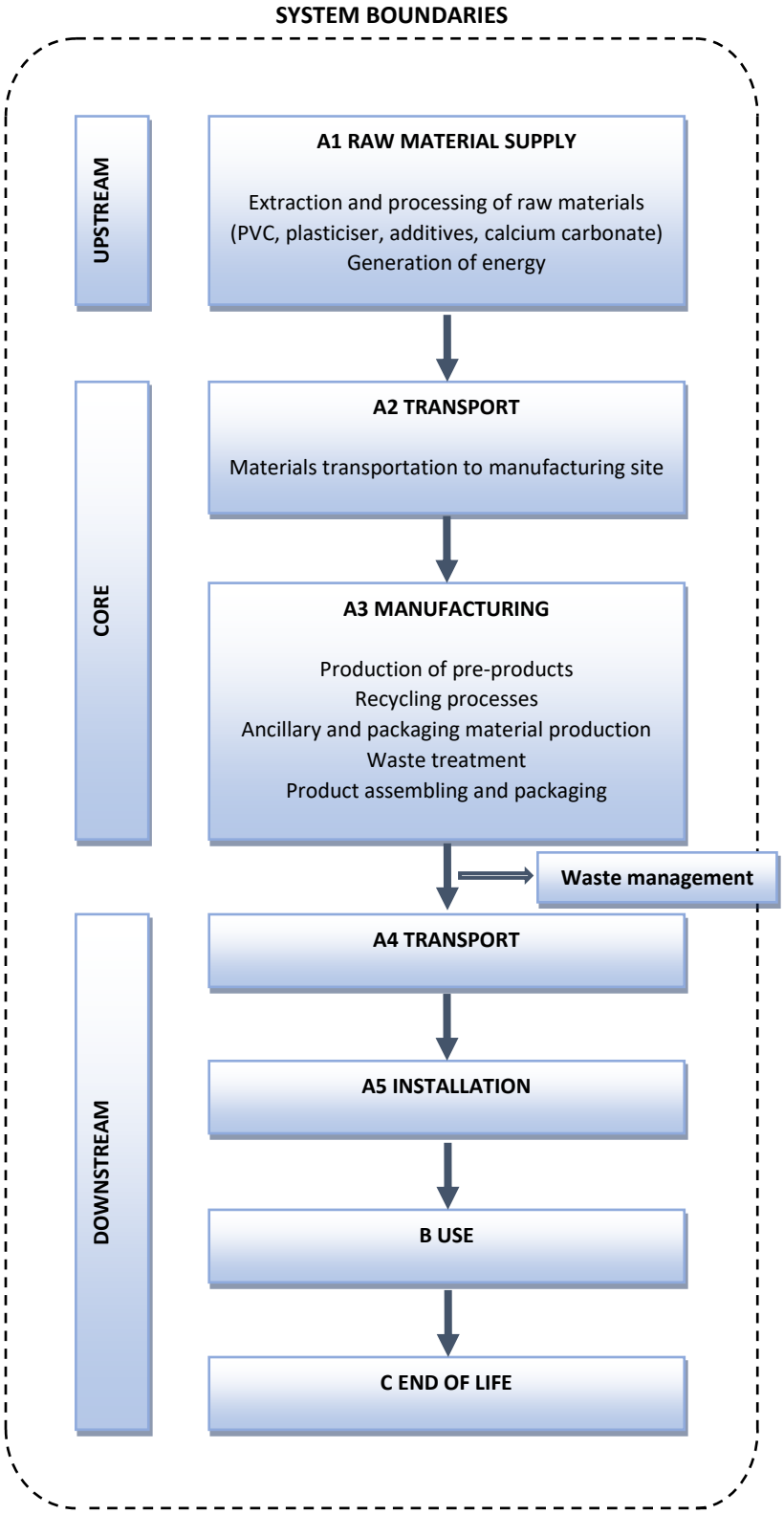


Figure 2. Flow diagram with system boundaries, stages and processes of the life cycle of 1m² of POLYSCREEN®.

4.3. Geographical boundaries

Primary inventory data were provided by the manufacturer and are representative of the manufacturing processes of the product.

4.4. Period under review

Data gathered from the factories engaged in the study refer to the production in 2016.

4.5. Data quality

The data quality in the LCA followed the requirements in the referenced PCR document. Primary data collection was provided by the manufacturer, including all relevant foreground processes and flows, and were specific for the production site. Secondary data were selected accordingly for background processes, with technological, geographical and temporary representativeness.

4.6. Secondary data

Secondary data for the environmental analysis were obtained from the Ecoinvent database 3.3 (Wernet et al., 2016). The most similar processes to the ones in the production system were selected to model the production system.

The electricity production mix corresponds to Spain (Red Eléctrica Española, 2016). The electricity production mix is presented in Figure 3. Global warming potential for the different electricity production mix is 0.319 kg CO_2 eq./kWh.

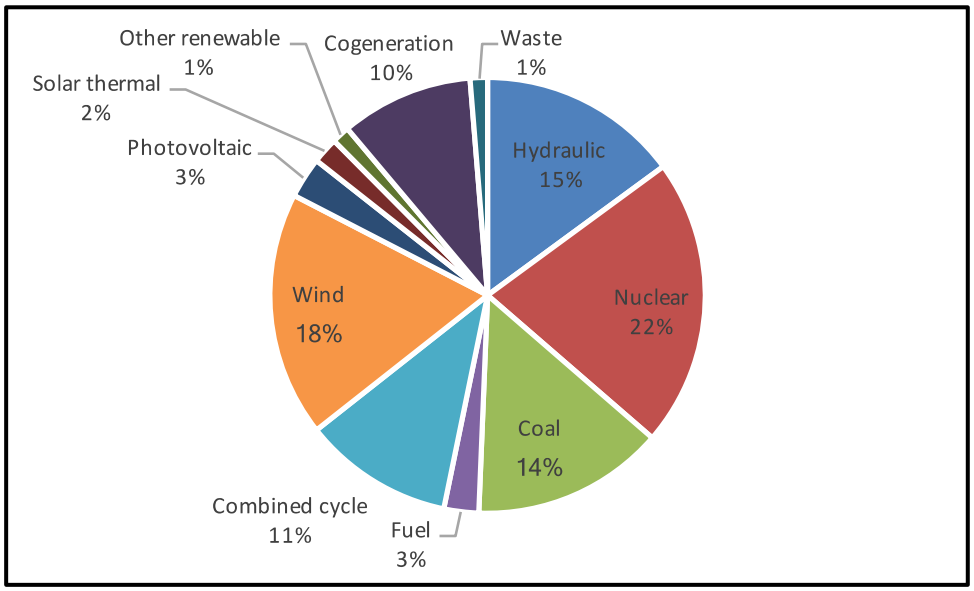


Figure 3. Electricity production mix.

4.7. Cut-off rules

The inventory was developed considering all available data from the manufacturing processes, covering all raw materials use and energy consumption. Therefore, it can be assumed that neglected data were less than 5% of total mass and energy inflows in the upstream and core processes.

4.8. Allocations

Where necessary, an allocation based in mass has been done.

4.9. Environmental assessment methods

The indicators and impact categories selected for the environmental assessment were those indicated in PCR 2012:01 version 2.3 *Construction products and construction services,* using the environmental assessment methods CML-IA baseline version 4.1 and EDIP (for the calculation of waste production).

The SimaPro program version 8.3 has been used for the environmental assessment, with Ecoinvent v3.3 LCA database.

4.10. Comparability

EPD® of construction products may not be comparable if they do not comply with EN 15804.

Environmental product declarations within the same product category from different programs may not be comparable.

The verifier and the program operator do not make any claim nor have any responsibility of the legality of the product.

5. Environmental performance-related information

The environmental performance of the life cycle of 1 m^2 of POLYSCREEN® 351 is presented in the following tables. The results showed describes POLYSCREEN® 351 product and are also valid for POLYSCREEN® 501 since their impact differs in a percentage lower than 10%.

Density of the product: 569 g/m^2

Table 5. Potential environmental impact results of POLYSCREEN® 351/501.

Impact category	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Global warming (GW100a)	kg CO_2-eq	3,01E+00	2,88E+00	1,21E-01	4,83E-04	0	0	0	0	0	0	0	0	4,19E-03	0	5,29E-06	MND[1]
Ozone layer depletion	kg CFC 11-eq	3,00E-07	2,75E-07	2,37E-08	8,81E-11	0	0	0	0	0	0	0	0	7,65E-10	0	1,38E-12	MND
Acidification	kg SO_2-eq	1,16E-02	1,12E-02	3,34E-04	1,21E-06	0	0	0	0	0	0	0	0	1,05E-05	0	3,66E-08	MND
Eutrophication	kg PO_4^{3-}-eq	2,57E-03	2,50E-03	7,02E-05	2,55E-07	0	0	0	0	0	0	0	0	2,21E-06	0	1,10E-08	MND
Photochemical oxidation	kg C_2H_4-eq	6,14E-04	5,93E-04	1,97E-05	7,63E-08	0	0	0	0	0	0	0	0	6,63E-07	0	1,70E-09	MND
Abiotic depletion (elements)	kg Sb-eq	4,63E-06	4,38E-06	2,32E-07	1,44E-09	0	0	0	0	0	0	0	0	1,25E-08	0	7,22E-12	MND
Abiotic depletion (fossil fuels)	MJ	5,59E+01	5,38E+01	2,06E+00	7,68E-03	0	0	0	0	0	0	0	0	6,67E-02	0	1,34E-04	MND

[1] Module Not Declared

Table 6. Use of resources results of POLYSCREEN® 351/501.

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ	7,67E+00	7,64E+00	2,84E-02	9,39E-05	0	0	0	0	0	0	0	0	8,15E-04	0	3,94E-06	MND
Use of renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	7,67E+00	7,64E+00	2,84E-02	9,39E-05	0	0	0	0	0	0	0	0	8,15E-04	0	3,94E-06	MND
Use of non- renewable primary energy excluding non- renewable primary energy resources used as raw materials	MJ	5,59E+01	5,38E+01	2,06E+00	7,68E-03	0	0	0	0	0	0	0	0	6,67E-02	0	1,34E-04	MND
Use of non- renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of non- renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	5,59E+01	5,38E+01	2,06E+00	7,68E-03	0	0	0	0	0	0	0	0	6,67E-02	0	1,34E-04	MND
Use of secondary material	Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of net fresh water	m^3	1,82E-02	1,78E-02	4,74E-04	1,42E-06	0	0	0	0	0	0	0	0	1,23E-05	0	1,41E-07	MND
Direct use of water in the core process	m^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

Table 7. Other indicator results of POLYSCREEN® 351/501.

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Non-hazardous waste	Kg	5,19E-01	3,49E-01	1,67E-01	3,47E-04	0	0	0	0	0	0	0	0	3,01E-03	0	5,09E-04	MND
Hazardous waste	Kg	8,09E-05	7,97E-05	1,12E-06	4,50E-09	0	0	0	0	0	0	0	0	3,91E-08	0	9,89E-11	MND
Radioactive waste	kg	2,13E-04	1,99E-04	1,35E-05	4,99E-08	0	0	0	0	0	0	0	0	4,34E-07	0	7,97E-10	MND
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for recycling	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

6. Interpretation of results

As we can see in figure 4 and previous tables of POLYSCREEN® 351/501 environmental performance, A1-A3 Product stage appears to have the biggest impact. Hence, this stage represents between 99.6% (Use of renewable primary energy) and 67.1% (Non-hazardous waste) of the whole life cycle impact. A4 Transport stage present slight impact, representing at most 32.1% (Non-hazardous waste) of the whole impact. C2 Transport to waste manager and C4 Disposal present no significant impact (<1% of the life cycle impact). Finally, A5 Installation stage presents negligible impact for all categories under study representing at most 0.1%. The product has not any impact during its use phase.

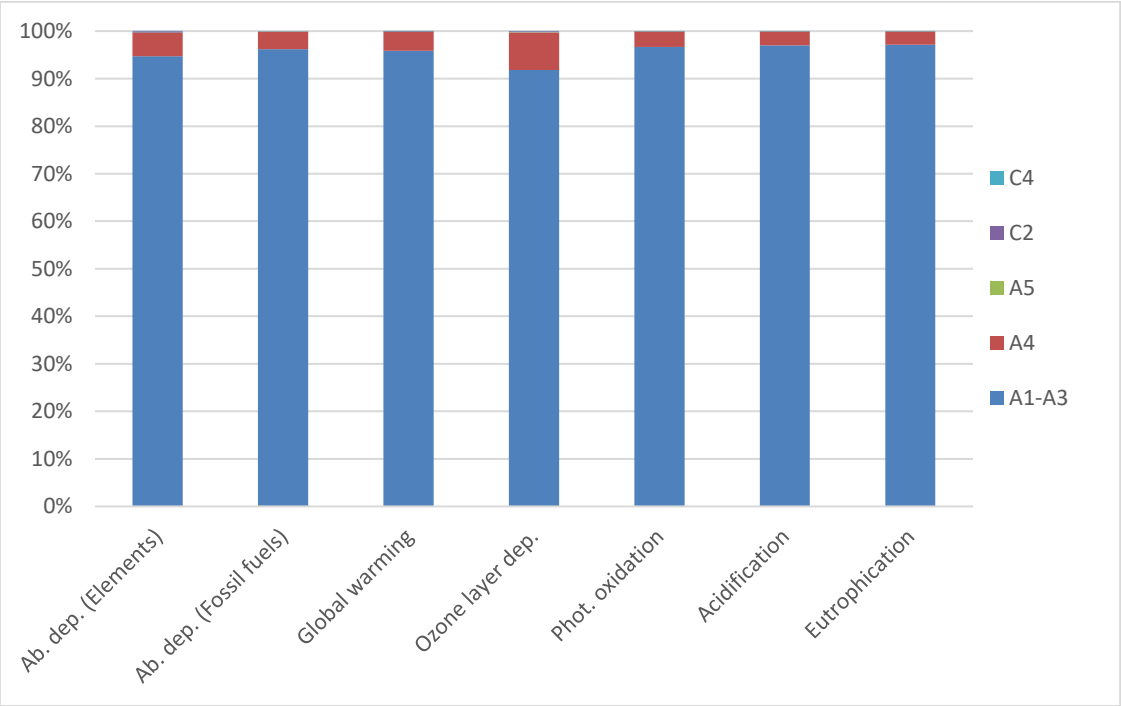


Figure 4. Impact of the life cycle of 1 m² of POLYSCREEN® 351/501, in percentage.

7. EPD® modifications regarding the previous version

- This document has been adapted to the requirements of PCR 2012:01 Construction product and construction services version 2.3.

- It has been included the product range POLYSCREEN® 473 SRC, and its environmental performance results are presented in Annex VI.

8. References

The underlying LCA

ISO 14040:2006. Environmental management -- Life cycle assessment -- Principles and framework

ISO 14044:2006. Environmental management -- Life cycle assessment -- Requirements and guidelines

ISO 14025:2006. Environmental labels and declarations -- Type III environmental declarations -- Principles and procedures

EN 15804:2012+A1:2013 – Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products

Complément national à la NF EN 15804+A1: Contribution des ouvrages de construction au développement durable - Déclarations environnementales sur les produits - Règles régissant les catégories de produits de construction (2016)

PCR 2012:01 version 2.3, Construction products and construction services, valid until 2020-03-03. The International EPD® System.

General Programme Instructions for the International EPD® System, version 2.5.

Central Product Classification (CPC) v 2.1 of the UN's Statistical Division. 2015. http://unstats.un.org/unsd/cr/registry/cpc-21.asp

REE. Red Eléctrica de España. http://www.ree.es/es/

Wernet, G., Bauer, C., Steubing, B., Reinhard, J., Moreno-Ruiz, E., and Weidema, B., 2016. The ecoinvent database version 3 (part I): overview and methodology. The International Journal of Life Cycle Assessment, [online] 21(9), pp.1218–1230. Available at: <http://link.springer.com/10.1007/s11367-016-1087-8> [Accessed 23 03 2017].

ANNEX I Environmental results of POLYSCREEN® 314 and POLYSCREEN® Bali

The results showed describes POLYSCREEN® 314 product and are also valid for POLYSCREEN® Bali since their impact differs in a percentage lower than 10%.
Density of the product: 337 g/m^2.

Table 1. Potential environmental impact results of POLYSCREEN® 314

		TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
Impact category	**Unit**		**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	
Global warming (GW100a)	kg CO_2-eq	2,35E+00	2,27E+00	7,44E-02	4,28E-04	0	0	0	0	0	0	0	0	2,78E-03	0	3,51E-03	MND
Ozone layer depletion	kg CFC 11-eq	2,59E-07	2,42E-07	1,46E-08	7,80E-11	0	0	0	0	0	0	0	0	5,07E-10	0	9,18E-10	MND
Acidification	kg SO_2-eq	9,24E-03	9,00E-03	2,06E-04	1,07E-06	0	0	0	0	0	0	0	0	6,98E-06	0	2,43E-05	MND
Eutrophication	kg PO_4^{3-}-eq	1,97E-03	1,92E-03	4,33E-05	2,26E-07	0	0	0	0	0	0	0	0	1,47E-06	0	7,29E-06	MND
Photochemical oxidation	kg C_2H_4-eq	4,80E-04	4,66E-04	1,22E-05	6,76E-08	0	0	0	0	0	0	0	0	4,40E-07	0	1,13E-06	MND
Abiotic depletion (elements)	kg Sb-eq	3,28E-06	3,12E-06	1,43E-07	1,27E-09	0	0	0	0	0	0	0	0	8,27E-09	0	4,79E-09	MND
Abiotic depletion (fossil fuels)	MJ	4,12E+01	3,98E+01	1,27E+00	6,80E-03	0	0	0	0	0	0	0	0	4,42E-02	0	8,86E-02	MND

Table 2. Use of resources results of POLYSCREEN® 314

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ	6,59E+00	6,57E+00	1,75E-02	8,32E-05	0	0	0	0	0	0	0	0	5,41E-04	0	2,61E-03	MND
Use of renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	6,59E+00	6,57E+00	1,75E-02	8,32E-05	0	0	0	0	0	0	0	0	5,41E-04	0	2,61E-03	MND
Use of non- renewable primary energy excluding non- renewable primary energy resources used as raw materials	MJ	4,12E+01	3,98E+01	1,27E+00	6,80E-03	0	0	0	0	0	0	0	0	4,42E-02	0	8,86E-02	MND
Use of non- renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of non- renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	4,12E+01	3,98E+01	1,27E+00	6,80E-03	0	0	0	0	0	0	0	0	4,42E-02	0	8,86E-02	MND
Use of secondary material	Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of net fresh water	m^3	1,36E-02	1,32E-02	2,93E-04	1,26E-06	0	0	0	0	0	0	0	0	8,18E-06	0	9,38E-05	MND
Direct use of water in the core process	m^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

Table 3. Other indicators describing waste categories of POLYSCREEN® 314

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Non-hazardous waste	Kg	7,73E-01	3,30E-01	1,03E-01	3,07E-04	0	0	0	0	0	0	0	0	2,00E-03	0	3,38E-01	MND
Hazardous waste	Kg	5,67E-05	5,59E-05	6,93E-07	3,99E-09	0	0	0	0	0	0	0	0	2,59E-08	0	6,56E-08	MND
Radioactive waste	kg	1,88E-04	1,79E-04	8,33E-06	4,43E-08	0	0	0	0	0	0	0	0	2,88E-07	0	5,29E-07	MND
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for recycling	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

ANNEX II Environmental results of POLYSCREEN® 350

Density of the product: 400 g/m^2

Table 1. Potential environmental impact results of POLYSCREEN® 350

		TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
Impact category	**Unit**		**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	
Global warming (GW100a)	kg CO_2-eq	2,62E+00	2,49E+00	1,20E-01	4,28E-04	0	0	0	0	0	0	0	0	3,30E-03	0	4,17E-03	MND
Ozone layer depletion	kg CFC 11-eq	2,80E-07	2,55E-07	2,37E-08	7,80E-11	0	0	0	0	0	0	0	0	6,02E-10	0	1,09E-09	MND
Acidification	kg SO_2-eq	1,01E-02	9,77E-03	3,33E-04	1,07E-06	0	0	0	0	0	0	0	0	8,29E-06	0	2,88E-05	MND
Eutrophication	kg PO_4^{3-}-eq	2,20E-03	2,12E-03	6,99E-05	2,26E-07	0	0	0	0	0	0	0	0	1,74E-06	0	8,65E-06	MND
Photochemical oxidation	kg C_2H_4-eq	5,32E-04	5,10E-04	1,96E-05	6,76E-08	0	0	0	0	0	0	0	0	5,22E-07	0	1,34E-06	MND
Abiotic depletion (elements)	kg Sb-eq	3,80E-06	3,55E-06	2,31E-07	1,27E-09	0	0	0	0	0	0	0	0	9,82E-09	0	5,69E-09	MND
Abiotic depletion (fossil fuels)	MJ	4,69E+01	4,47E+01	2,05E+00	6,80E-03	0	0	0	0	0	0	0	0	5,25E-02	0	1,05E-01	MND

Table 2. Use of resources results of POLYSCREEN® 350

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ	6,84E+00	6,81E+00	2,83E-02	8,32E-05	0	0	0	0	0	0	0	0	6,42E-04	0	3,10E-03	MND
Use of renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	6,84E+00	6,81E+00	2,83E-02	8,32E-05	0	0	0	0	0	0	0	0	6,42E-04	0	3,10E-03	MND
Use of non- renewable primary energy excluding non- renewable primary energy resources used as raw materials	MJ	4,69E+01	4,47E+01	2,05E+00	6,80E-03	0	0	0	0	0	0	0	0	5,25E-02	0	1,05E-01	MND
Use of non- renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of non- renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	4,69E+01	4,47E+01	2,05E+00	6,80E-03	0	0	0	0	0	0	0	0	5,25E-02	0	1,05E-01	MND
Use of secondary material	Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of net fresh water	m^3	1,53E-02	1,47E-02	4,72E-04	1,26E-06	0	0	0	0	0	0	0	0	9,71E-06	0	1,11E-04	MND
Direct use of water in the core process	m^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

Table 3. Other indicators describing waste categories of POLYSCREEN® 350

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Non-hazardous waste	Kg	8,70E-01	3,01E-01	1,66E-01	3,07E-04	0	0	0	0	0	0	0	0	2,37E-03	0	4,01E-01	MND
Hazardous waste	Kg	6,57E-05	6,44E-05	1,12E-06	3,99E-09	0	0	0	0	0	0	0	0	3,08E-08	0	7,79E-08	MND
Radioactive waste	kg	2,01E-04	1,86E-04	1,35E-05	4,43E-08	0	0	0	0	0	0	0	0	3,42E-07	0	6,28E-07	MND
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for recycling	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

ANNEX III Environmental results of POLYSCREEN® 475, 503, 365, 473 and 403

The results showed describes POLYSCREEN® 475 product and are also valid for POLYSCREEN® 503, 365, 473 and 403 since their impact differs in a percentage lower than 10%. Density of the product: 445 g/m^2

Table 1. Potential environmental impact results of POLYSCREEN® 475

		TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
Impact category	Unit		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Global warming (GW100a)	kg CO_2-eq	2,30E+00	2,16E+00	1,34E-01	4,76E-04	0	0	0	0	0	0	0	0	3,67E-03	0	4,64E-03	MND
Ozone layer depletion	kg CFC 11-eq	2,41E-07	2,13E-07	2,63E-08	8,68E-11	0	0	0	0	0	0	0	0	6,70E-10	0	1,21E-09	MND
Acidification	kg SO_2-eq	8,90E-03	8,48E-03	3,70E-04	1,19E-06	0	0	0	0	0	0	0	0	9,22E-06	0	3,20E-05	MND
Eutrophication	kg PO_4^{3-}-eq	1,95E-03	1,87E-03	7,78E-05	2,51E-07	0	0	0	0	0	0	0	0	1,94E-06	0	9,62E-06	MND
Photochemical oxidation	kg C_2H_4-eq	4,69E-04	4,45E-04	2,18E-05	7,52E-08	0	0	0	0	0	0	0	0	5,80E-07	0	1,49E-06	MND
Abiotic depletion (elements)	kg Sb-eq	3,46E-06	3,19E-06	2,57E-07	1,42E-09	0	0	0	0	0	0	0	0	1,09E-08	0	6,33E-09	MND
Abiotic depletion (fossil fuels)	MJ	4,19E+01	3,95E+01	2,29E+00	7,57E-03	0	0	0	0	0	0	0	0	5,84E-02	0	1,17E-01	MND

Table 2. Use of resources results of POLYSCREEN® 475

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ	6,03E+00	6,00E+00	3,15E-02	9,26E-05	0	0	0	0	0	0	0	0	7,14E-04	0	3,45E-03	MND
Use of renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	6,03E+00	6,00E+00	3,15E-02	9,26E-05	0	0	0	0	0	0	0	0	7,14E-04	0	3,45E-03	MND
Use of non- renewable primary energy excluding non- renewable primary energy resources used as raw materials	MJ	4,19E+01	3,95E+01	2,29E+00	7,57E-03	0	0	0	0	0	0	0	0	5,84E-02	0	1,17E-01	MND
Use of non- renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of non- renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	4,19E+01	3,95E+01	2,29E+00	7,57E-03	0	0	0	0	0	0	0	0	5,84E-02	0	1,17E-01	MND
Use of secondary material	Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of net fresh water	m^3	1,38E-02	1,31E-02	5,25E-04	1,40E-06	0	0	0	0	0	0	0	0	1,08E-05	0	1,24E-04	MND
Direct use of water in the core process	m^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

Table 3. Other indicators describing waste categories of POLYSCREEN® 475

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Non-hazardous waste	Kg	8,77E-01	2,43E-01	1,85E-01	3,42E-04	0	0	0	0	0	0	0	0	2,64E-03	0	4,46E-01	MND
Hazardous waste	Kg	5,95E-05	5,81E-05	1,25E-06	4,44E-09	0	0	0	0	0	0	0	0	3,42E-08	0	8,66E-08	MND
Radioactive waste	kg	1,72E-04	1,56E-04	1,50E-05	4,92E-08	0	0	0	0	0	0	0	0	3,80E-07	0	6,98E-07	MND
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for recycling	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

ANNEX IV Environmental results of POLYSCREEN® 550, 597 and 650

The results showed describes POLYSCREEN® 550 product and are also valid for POLYSCREEN® 597 and 650 since their impact differs in a percentage lower than 10%. Density of the product: 610 g/m^2

Table 1. Potential environmental impact results of POLYSCREEN® 550

		TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
Impact category	**Unit**		**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	
Global warming (GW100a)	kg CO_2-eq	3,23E+00	3,09E+00	1,31E-01	6,35E-04	0	0	0	0	0	0	0	0	5,03E-03	0	6,36E-03	MND
Ozone layer depletion	kg CFC 11-eq	3,11E-07	2,82E-07	2,59E-08	1,16E-10	0	0	0	0	0	0	0	0	9,18E-10	0	1,66E-09	MND
Acidification	kg SO_2-eq	1,23E-02	1,19E-02	3,64E-04	1,59E-06	0	0	0	0	0	0	0	0	1,26E-05	0	4,39E-05	MND
Eutrophication	kg PO_4^{3-}-eq	2,80E-03	2,71E-03	7,65E-05	3,35E-07	0	0	0	0	0	0	0	0	2,66E-06	0	1,32E-05	MND
Photochemical oxidation	kg C_2H_4-eq	6,58E-04	6,34E-04	2,15E-05	1,00E-07	0	0	0	0	0	0	0	0	7,96E-07	0	2,04E-06	MND
Abiotic depletion (elements)	kg Sb-eq	5,02E-06	4,74E-06	2,52E-07	1,89E-09	0	0	0	0	0	0	0	0	1,50E-08	0	8,67E-09	MND
Abiotic depletion (fossil fuels)	MJ	6,12E+01	5,87E+01	2,25E+00	1,01E-02	0	0	0	0	0	0	0	0	8,01E-02	0	1,60E-01	MND

Table 2. Use of resources results of POLYSCREEN® 550

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ	8,62E+00	8,58E+00	3,10E-02	1,23E-04	0	0	0	0	0	0	0	0	9,79E-04	0	4,73E-03	MND
Use of renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	8,62E+00	8,58E+00	3,10E-02	1,23E-04	0	0	0	0	0	0	0	0	9,79E-04	0	4,73E-03	MND
Use of non- renewable primary energy excluding non- renewable primary energy resources used as raw materials	MJ	6,12E+01	5,87E+01	2,25E+00	1,01E-02	0	0	0	0	0	0	0	0	8,01E-02	0	1,60E-01	MND
Use of non- renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of non- renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	6,12E+01	5,87E+01	2,25E+00	1,01E-02	0	0	0	0	0	0	0	0	8,01E-02	0	1,60E-01	MND
Use of secondary material	Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of net fresh water	m^3	2,09E-02	2,02E-02	5,17E-04	1,87E-06	0	0	0	0	0	0	0	0	1,48E-05	0	1,70E-04	MND
Direct use of water in the core process	m^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

Table 3. Other indicators describing waste categories of POLYSCREEN® 550

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Non-hazardous waste	Kg	1,18E+00	3,85E-01	1,82E-01	4,56E-04	0	0	0	0	0	0	0	0	3,62E-03	0	6,11E-01	MND
Hazardous waste	Kg	8,25E-05	8,11E-05	1,22E-06	5,91E-09	0	0	0	0	0	0	0	0	4,69E-08	0	1,19E-07	MND
Radioactive waste	kg	2,18E-04	2,02E-04	1,47E-05	6,57E-08	0	0	0	0	0	0	0	0	5,21E-07	0	9,57E-07	MND
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for recycling	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

ANNEX V Environmental results of POLYSCREEN® 365 SRC

Density of the product: 500 g/m^2

Table 1. Potential environmental impact results of POLYSCREEN® 365 SRC

		TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
Impact category	**Unit**		**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	
Global warming (GW100a)	kg CO_2-eq	5,45E+00	5,33E+00	1,07E-01	4,28E-04	0	0	0	0	0	0	0	0	5,03E-03	0	5,29E-03	MND
Ozone layer depletion	kg CFC 11-eq	6,64E-07	6,40E-07	2,11E-08	7,80E-11	0	0	0	0	0	0	0	0	9,18E-10	0	1,38E-09	MND
Acidification	kg SO_2-eq	2,23E-02	2,19E-02	2,97E-04	1,07E-06	0	0	0	0	0	0	0	0	1,26E-05	0	3,66E-05	MND
Eutrophication	kg PO_4^3-eq	4,66E-03	4,59E-03	6,23E-05	2,26E-07	0	0	0	0	0	0	0	0	2,66E-06	0	1,10E-05	MND
Photochemical oxidation	kg C_2H_4-eq	1,21E-03	1,19E-03	1,75E-05	6,76E-08	0	0	0	0	0	0	0	0	7,96E-07	0	1,70E-06	MND
Abiotic depletion (elements)	kg Sb-eq	9,32E-06	9,09E-06	2,06E-07	1,27E-09	0	0	0	0	0	0	0	0	1,50E-08	0	7,22E-09	MND
Abiotic depletion (fossil fuels)	MJ	8,78E+01	8,57E+01	1,83E+00	6,80E-03	0	0	0	0	0	0	0	0	8,01E-02	0	1,34E-01	MND

Table 2. Use of resources results of POLYSCREEN® 365 SRC

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ	1,28E+01	1,27E+01	2,52E-02	8,32E-05	0	0	0	0	0	0	0	0	9,79E-04	0	3,94E-03	MND
Use of renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	1,28E+01	1,27E+01	2,52E-02	8,32E-05	0	0	0	0	0	0	0	0	9,79E-04	0	3,94E-03	MND
Use of non- renewable primary energy excluding non- renewable primary energy resources used as raw materials	MJ	8,78E+01	8,57E+01	1,83E+00	6,80E-03	0	0	0	0	0	0	0	0	8,01E-02	0	1,34E-01	MND
Use of non- renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of non- renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	8,78E+01	8,57E+01	1,83E+00	6,80E-03	0	0	0	0	0	0	0	0	8,01E-02	0	1,34E-01	MND
Use of secondary material	Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of net fresh water	m^3	3,01E-02	2,95E-02	4,21E-04	1,26E-06	0	0	0	0	0	0	0	0	1,48E-05	0	1,41E-04	MND
Direct use of water in the core process	m^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

Table 3. Other indicators describing waste categories of POLYSCREEN® 365 SRC

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Non-hazardous waste	Kg	1,29E+00	6,27E-01	1,48E-01	3,07E-04	0	0	0	0	0	0	0	0	3,62E-03	0	5,09E-01	MND
Hazardous waste	Kg	1,14E-04	1,13E-04	9,98E-07	3,99E-09	0	0	0	0	0	0	0	0	4,69E-08	0	9,89E-08	MND
Radioactive waste	kg	4,80E-04	4,67E-04	1,20E-05	4,43E-08	0	0	0	0	0	0	0	0	5,21E-07	0	7,97E-07	MND
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for recycling	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

ANNEX VI Environmental results of POLYSCREEN® 473 SRC

Density of the product: 631 g/m^2

Table 1. Potential environmental impact results of POLYSCREEN® 473 SRC

		TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
Impact category	**Unit**		**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	
Global warming (GW100a)	kg CO_2-eq	3,16E+00	3,02E+00	1,32E-01	4,75E-04	0	0	0	0	0	0	0	0	5,21E-03	0	6,58E-03	MND
Ozone layer depletion	kg CFC 11-eq	3,29E-07	3,01E-07	2,60E-08	8,67E-11	0	0	0	0	0	0	0	0	9,50E-10	0	1,72E-09	MND
Acidification	kg SO_2-eq	1,31E-02	1,27E-02	3,65E-04	1,19E-06	0	0	0	0	0	0	0	0	1,31E-05	0	4,54E-05	MND
Eutrophication	kg PO_4^3-eq	3,13E-03	3,04E-03	7,67E-05	2,51E-07	0	0	0	0	0	0	0	0	2,75E-06	0	1,37E-05	MND
Photochemical oxidation	kg C_2H_4-eq	7,68E-04	7,43E-04	2,15E-05	7,51E-08	0	0	0	0	0	0	0	0	8,24E-07	0	2,11E-06	MND
Abiotic depletion (elements)	kg Sb-eq	7,83E-06	7,55E-06	2,53E-07	1,41E-09	0	0	0	0	0	0	0	0	1,55E-08	0	8,98E-09	MND
Abiotic depletion (fossil fuels)	MJ	5,68E+01	5,43E+01	2,25E+00	7,56E-03	0	0	0	0	0	0	0	0	8,29E-02	0	1,66E-01	MND

Table 2. Use of resources results of POLYSCREEN® 473 SRC

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ	7,83E+00	7,80E+00	3,11E-02	9,24E-05	0	0	0	0	0	0	0	0	1,01E-03	0	4,90E-03	MND
Use of renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	7,83E+00	7,80E+00	3,11E-02	9,24E-05	0	0	0	0	0	0	0	0	1,01E-03	0	4,90E-03	MND
Use of non- renewable primary energy excluding non- renewable primary energy resources used as raw materials	MJ	5,68E+01	5,43E+01	2,25E+00	7,56E-03	0	0	0	0	0	0	0	0	8,29E-02	0	1,66E-01	MND
Use of non- renewable primary energy resources used as raw materials	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Total use of non- renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	5,68E+01	5,43E+01	2,25E+00	7,56E-03	0	0	0	0	0	0	0	0	8,29E-02	0	1,66E-01	MND
Use of secondary material	Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of non-renewable secondary fuels	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Use of net fresh water	m^3	2,23E-02	2,16E-02	5,18E-04	1,40E-06	0	0	0	0	0	0	0	0	1,53E-05	0	1,76E-04	MND
Direct use of water in the core process	m^3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND

Table 3. Other indicators describing waste categories of POLYSCREEN® 473 SRC

Indicator	Unit	TOTAL	PRODUCT STAGE	CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				MODULE D
			A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Non-hazardous waste	Kg	1,31E+00	4,92E-01	1,82E-01	3,41E-04	0	0	0	0	0	0	0	0	3,75E-03	0	6,33E-01	MND
Hazardous waste	Kg	7,82E-05	7,68E-05	1,23E-06	4,43E-09	0	0	0	0	0	0	0	0	4,86E-08		1,23E-07	MND
Radioactive waste	kg	2,28E-04	2,11E-04	1,48E-05	4,92E-08	0	0	0	0	0	0	0	0	5,39E-07	0	9,91E-07	MND
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for recycling	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND
Exported energy (electricity)	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	MND