# Environmental Product Declaration



In accordance with ISO 14025:2006 for:

# Plasper® ECO-PVC Recycled compounds

from

TECNI-PLASPER, S.L.U.

Programme: The International EPD® System, <u>www.environdec.com</u>

Programme operator: EPD International AB

EPD registration number: | EPD-IES-0020946 ECO PVC

Publication date: 2025-03-27 Valid until: 2030-03-27

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com







# **Programme information**

Programme:	The International EPD® System
Address:	EPD International AB
	Box 210 60
	SE-100 31 Stockholm
	Sweden
Website:	<u>www.environdec.com</u>
E-mail:	<u>info@environdec.com</u>

Accountabilities for PCR, LCA and independent, third-party verification						
Product Category Rules (PCR)						
PCR: PLASTICS IN PRIMARY FORMS. PCR 2010:16. VERSION 4.0.0. CPC: 34730 Polymers of vinyl chloride or other halogenated olefins, in primary forms						
PCR review was conducted by: The Technical Committee of the International EPD System. See www.environdec.com for a list of members. The review panel may be contacted via info@environdec.com. Chair of the PCR review: Poala Borla						
Life Cycle Assessment (LCA)						
LCA accountability: Manuel Alonso Cortés, Omawa Huella Ecológica. S.L.						
Third-party verification						
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:						
⊠ EPD verification by individual verifier						
Third-party verifier: Marcel Gómez Ferrer; Info@marcelgomez.com; www.marcelgomez.com Approved by: The International EPD® System						
Procedure for follow-up of data during EPD validity involves third-party verifier:						
□Yes ⊠No						

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes 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 ISO 14025.





# **Company information**

Owner of the EPD:

TECNI-PLASPER, S.L.U. https://www.plasper.com/

Contact: info@plasper.com, +34 938 468 369

Description of the organisation:

We are a family-owned company, a leader in Europe in the manufacture of desiccants (moisture absorbers) and other thermoplastic compounds. At Plasper we are firmly committed to providing our clients with the highest quality of service. Our ISO 9001:2015 and ISO 14001:2015 certification demonstrates our company's focus on improving continuously our production systems and processes. After over 30 years in business, Plasper continues looking for the excellence through its products and processes across an energetic, innovative, creative spirit clearly customer oriented.

Name and location of production site: Buenaventura Aribau S/N. Pol. Ind. CAN Font de la Parera 08430 La Roca Del Vallès

## **Product information**

Product name:

Plasper® ECO-PVC from recycled post-

industrial wastes

Product identification:

Plasper® ECO-PVC

More information:

 $\underline{\text{https://www.plasper.com/compuestos-pvc-flexible-reciclado}}$ 

### Product description:

The product PVC is a polyvinyl chloride (PVC) plasticized RECYCLE compound, especially suitable for injection, extrusion, and calendaring. This is multiple products and declare the average results of the included products according to the production volumes.

### UN CPC code:

https://unstats.un.org/unsd/classifications/Econ/cpc 347 - Plastics in primary form. "34730","Polymers of vinyl chloride or other halogenated olefins, in primary forms"

<u>Geographical scope:</u> Europe, Africa and Latin America, North America, United Kingdom.

Property	Condition	Method	Value	Unit
Hardness Shore A	23°C/15 s	ISO 868	70 /75 /80 / 85 /90	
Density	23°C	ISO 1183	1,50 ± 0,15	g/cm3
Mechanical properties: Tensile stress and strain at break	50mm/min	ISO 527	14± 3 230 ± 40	MPa %
Melt Flow Rate	190°C / 5 Kg	ISO 1133	≥ 6	g/10 min.
Melting temperature (or glass transition temperature for amorphous polymers)		ISO 11357	80-100	°C
Colour	Standard	IT-006	Black/Grey	





## LCA information

Declared unit: 1 kg of recycled PVC, including its packaging. (the weight of the packaging is not included in this 1 kg).

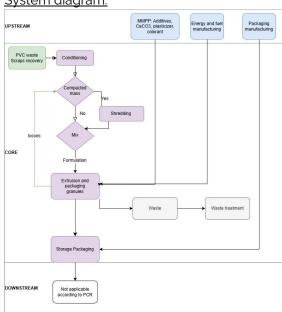
Reference service life: RSL and lifespan are not applicable for this product category. PVC (poly vinyl chloride) is the main raw material for rigid and flexible plastics which are widely used in construction for pipes, profile application and cable insulation.

<u>Time representativeness:</u> Primary data was collected internally from the period 2022-2023. (1/01/2022 - 31/12/2023)

<u>Database(s) and LCA software used:</u> Simapro 9.6.0.1 Analyst and Ecoinvent 3.10

<u>Description of system boundaries:</u> Cradle-togate.

System diagram:



### <u>Upstream processes – pre-production</u> <u>phase:</u>

This phase includes production of additives and packaging materials as well as all relevant transportation to the production plant.

Core processes – production phase: Core processes include all processing. It has considered all the energy consumption in the production plant and end-of-life treatment of manufacturing waste.

Downstream processes – post-production phase: Not applicable according to the PCR

Excluded lifecycle stages: Employee commuting is excluded from the assessment. The impacts of infrastructure (buildings, machinery, research and development activities. etc.) are also excluded. The infrastructure in the core process is excluded.

### Allocation

Allocations are made in the Core phase for fuel and energy consumed and waste produced at Plasper. To obtain the correct loads per declared unit of product, mass allocations were applied considering total production at Plasper (which also includes other products outside the scope of this EPD, such as Masterbatch and HFFR) and the production of the product covered by this EPD.

### Cut-off

In this EPD, the cutoff rules are followed, declaring at least 99% of total material and energy input flows have been included in the life cycle analysis. Although only materials having in summa less than 1% of weight of product were not used in calculations.

### Assumptions

Assumption was made for the end-of-life treatment of product packaging based on conservative principle. Specifically, the wasted product was transported by truck to the waste treatment sanitary field (100km).

### Data quality

Primary data is site-specific. Some raw material suppliers have provided their product emissions in kgCO2eq. Overall, the data quality can be described as good. Secondary data are extracted from the Ecoinvent 3.10 and Industry data 2.0 in Simapro v9.6.0.1.

### LCA practitioner:

Omawa Huella Ecológica SL. Manuel Alonso Cortés (manuel@omawa.es)





# **Content declaration**

# **Product**

Product components	Average (Kg)	Range (%)	Environmental / hazardous properties
PVC	0,8533	79%- 92%	100% Recycled, preconsumer
Additives	0.1467	8%-21%	Non-hazardous
TOTAL	1		

# **Packaging**

Plastics can be sold in bulk or in different types of packaging such as bags, big-bags and octabins. A weighted average of the packaging used in the reference period has been considered.

# **Recycled material**

<u>Origin of recycled materials:</u> Plasper® ECO-PVC are made from recycled preconsumer PVC materials, such as PVC regrind, laminate, cable purge, granules, and compound.





# Results of the environmental performance indicators

# Impact category indicators

PARAMETER		UNIT	Upstream	Core	Downstream	TOTAL
	Fossil	kg CO <sub>2</sub> eq.	6,42E-02	4,94E-02	MNR	1,14E-01
	Biogenic	kg CO <sub>2</sub> eq.	0,00E+00	0,00E+00	MNR	0,00E+00
Global warming potential (GWP)	Land use and land transformation	kg CO <sub>2</sub> eq.	2,09E-04	3,61E-03	MNR	3,82E-03
	TOTAL	kg CO <sub>2</sub> eq.	5,31E-02	6,00E-02	MNR	1,13E-01
Ozone layer de	Ozone layer depletion (ODP)		2,10E-09	1,66E-09	MNR	3,76E-09
Acidification	potential (AP)	mol H⁺ eq.	3,77E-04	1,87E-04	MNR	5,64E-04
	Aquatic freshwater	kg P eq.	2,25E-06	4,39E-06	MNR	6,64E-06
Eutrophication potential (EP)	Aquatic marine	kg N eq.	1,92E-04	8,66E-05	MNR	2,79E-04
poterniai (±1 )	Aquatic terrestrial	mol N eq.	9,96E-04	5,00E-04	MNR	1,50E-03
Photochemical oxidant creation potential (POCP)		kg NMVOC eq.	3,15E-04	2,22E-04	MNR	5,36E-04
Abiotic depletion potential (ADP)*	Metals and minerals	kg Sb eq.	2,89E-07	2,61E-09	MNR	2,91E-07
	Fossil resources	MJ, net calorific value	1,44E+00	7,58E-01	MNR	2,20E+00
Water deprivation potential (WDP)*		m³ world eq. deprived	2,77E-02	7,56E-03	MNR	3,53E-02

<sup>\*</sup>MNR – module not relevant

### **Resource use indicators**

PARAMETER		UNIT	Upstream	Core	Downstream	TOTAL
Primary energy Use	Use as energy carrier	MJ, net calorific value	2,13E-01	1,05E+00	MNR	1,27E+00
	Used as raw materials	MJ, net calorific value	1,79E-02	0,00E+00	MNR	1,79E-02
	TOTAL	MJ, net calorific value	2,30E-01	1,05E+00	MNR	1,28E+00
Primary energy resources – Non- renewable	Use as energy carrier	MJ, net calorific value	1,48E+00	7,58E-01	MNR	2,23E+00
	Used as raw materials	MJ, net calorific value	2,46E-02	3,62E+01	MNR	3,63E+01
	TOTAL	MJ, net calorific value	1,50E+00	3,70E+01	MNR	3,85E+01
Secondary ma	aterial (optional)	kg	7,59E-04	8,70E-01	MNR	8,71E-01
Renewable secondary fuels (optional)		MJ, net calorific value	3,98E-04	1,60E-07	MNR	3,99E-04
Non-renewable secondary fuels (optional)		MJ, net calorific value	0,00E+00	0,00E+00	MNR	0,00E+00
Net use of fresh water (optional)		$m^3$	1,23E-03	2,13E-01	MNR	2,14E-01





### **Waste indicators**

PARAMETER	UNIT	Upstream	Core	Downstream	TOTAL
Hazardous waste disposed	kg	6,91E-04	4,09E-04	MNR	1,10E-03
Non-hazardous waste disposed	kg	3,34E-02	2,51E+00	MNR	2,54E+00
Radioactive waste disposed	kg	4,87E-07	5,98E-07	MNR	1,09E-06

### **Output flow indicators**

PARAMETER	UNIT	Upstream	Core	Downstream	TOTAL
Components for reuse	kg	0,00E+00	0,00E+00	MNR	0,00E+00
Material for recycling	kg	3,01E-07	1,06E-05	MNR	1,09E-05
Materials for energy recovery	kg	3,03E-08	1,36E-09	MNR	3,16E-08
Exported energy, electricity	MJ per energy carrier	2,80E-04	3,90E-04	MNR	6,69E-04
Exported energy, thermal	MJ per energy carrier	6,92E-05	1,54E-04	MNR	2,24E-04

### Additional environmental information

The electrical mix used for the characterization of electricity has been the Spanish electrical mix of the company Acciona Green Energy Developments, SLU, for the years 2022 and 2023 and with 100% renewable energy.

# Information related to Sector EPD

This EPD is not sectoral

### References

General Programme Instructions of the International EPD® System. Version 4.0.

GPI 5.0. EPD International. (2024). General Programme Instructions for the International EPD® System. Version 5.0.0.

PCR 2010:16 Plastics in primary forms (version 4.0.0)

ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations. Principles and procedures.

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

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

ISO 14020:2022 Environmental statements and programmes for products. Principles and general requirements

Ecoinvent database v3.10 (2024) and Simapro 9.6.01. Analyst

Informe ACV \_DAP\_ Plasper® ECO-PVC v1

https://www.plasper.com/compuestos-pvc-flexible-reciclado

