ENVIRONMENTAL PRODUCT DECLARATION:

Cold-mix asphalt
CALCEL EP - CALCEL RED - CALCEL HF

DAPcons®.100.251

DECLARACIÓN AMBIENTAL DE PRODUCTO
ENVIRONMENTAL PRODUCT DECLARATION

EPD of multiple products

According to the standards:
ISO 14025 and UNE-EN 15804:2012+A2:2020/AC:2021

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GENERAL INFORMATION

Product

Cold-mix asphalt CALCEL EP - CALCEL RED - CALCEL HF

Company

Product description

Solvent-free cold bituminous mixtures CALCEL EP – CALCEL RED – CALCEL HF

Reference RCP

RCP 100 (version 3.2 - 21/12/2023) Construction products in general

Production plant

La Plana del Corb Industrial Complex
Ctra. Lleida to Balaguer (C-12), km 162 – 25600
Balaguer, Lleida – Spain

Validity

From: 09/09/2025 Until: 09/09/2030

The validity of DAPcons®.100.251 is subject to the conditions of the regulation DAPcons®. The current edition of this DAPcons® is the one that appears in the registry maintained by Cateb; for informational purposes, it is included on the Program website www.dapcons.com

EXECUTIVE SUMMARY

Cold-mix asphalt CALCEL EP - CALCEL RED - CALCEL HF

DAPconstruction® Programme Operator
Environmental Product Declarations in the Construction sector
www.dapcons.com

Programme Manager
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Owner of the declaration
SORIGUÉ S.A.U.
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www.calcel.com

Author of the Life cycle assessment:
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Declared product

Cold-mix asphalt CALCEL EP - CALCEL RED - CALCEL HF

Geographic representation

This declaration has been prepared using production data from the SORIGUÉ plant located in Balaguer, Lleida – Spain.

Variability between different products

The variability among the declared products in A1–A3 for “Climate Change – Total” is greater than 10%.

Declaration number

DAPcons®.100.251

Issue date

10/09/2024

Validity

This verified declaration authorizes its holder to carry the logo of the operator of the ecolabelling program DAPconstruction®. The declaration is applicable exclusively to the mentioned product and for five years from the date of registration. The information contained in this statement was provided under the responsibility of: **SORIGUÉ S.A.U.**

Programme Administrator Signature

Celestí Ventura Cisternas. President of Cateb

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Verifier Signature

DAVID PORRAS MELENDEZ. MARCEL GOMEZ CONSULTORIA AMBIENTAL SL. Verifier accredited by the administrator of the DAPcons® Programme

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ENVIRONMENTAL PRODUCT DECLARATION

1. PRODUCT DESCRIPTION AND USE

This declaration covers the cold-mix asphalt families CALCEL EP, CALCEL RED, and CALCEL HF, intended for the construction sector and produced during 2022 at the SORIGUÉ industrial complex located in Balaguer (Lleida, Spain). The results presented reflect the environmental performance of an average cold-mix asphalt product representative of these families, weighted according to 2022 production volumes.

CALCEL EP
Cold-mix asphalt composed of a blend of washed crushed aggregate and bituminous binder with biodegradable-based fluidifiers. The oil-based fluidifier provides excellent workability, even at sub-zero temperatures.
This asphalt is an eco-active and environmentally friendly mix, as it contains no solvents or volatile organic compounds in its formulation, and does not require heating of the materials for its manufacture, thereby avoiding gas and fume emissions.

CALCEL EP cold asphalt is suitable for:

- Pothole repairs
- Road and pathway maintenance
- Service trench refilling under extreme low-temperature conditions (operating range: -40°C to +60°C)

CALCEL RED
Cold-mix asphalt composed of a combination of washed crushed aggregate according to UNE 13043, modified bituminous binder type C67BPF3, and red pigment.
CALCEL RED is an eco-active and environmentally friendly mixture, as it does not require material heating during manufacture, thus avoiding gas and fume emissions.
This cold asphalt contains polymer-modified emulsion in its formulation, offering excellent flexibility, high cohesion, aging resistance, and the ability to accommodate greater deformation than conventional emulsions would allow.

CALCEL RED cold asphalt is suitable for:

- Red-colored pavement applications
- Pothole repairs
- Bicycle lane maintenance
- Red pedestrian areas
- Manual decorative paving in small spaces inaccessible to hot-mix asphalt machinery

CALCEL HF
Cold-mix asphalt composed of a blend of washed crushed aggregate, steel slag aggregate, and bituminous binder with biodegradable-based fluidifiers.
CALCEL HF asphalt enables road repairs under all climatic conditions (from -40°C to +60°C), ensuring maximum long-term durability.
The oil-based fluidifier provides excellent workability even at sub-zero temperatures.
This is an eco-active and environmentally friendly mixture due to the absence of solvents and volatile organic compounds in its formulation, and the elimination of heating during production, thus avoiding gas and fume emissions.

It has a wide range of applications, including:

- Trench repair after utility works (e.g., water, gas, electricity)
- Filling and sealing of holes for signage and bollards
- Manual operations in small or confined spaces where hot-mix asphalt machinery cannot access

1.1 Content information

Product components

The components of each of the cold-mix asphalt families included in this declaration are shown in the following technical specification tables.

Aggregates: 94–95%
Binder: 5–6%
Others: <1%

Packaging materials

These products can be supplied in the following packaging:

- 25 kg buckets made of 100% post-consumer recycled PP, with a black LDPE bag made of 100% post-consumer recycled material, PET strapping, and an LDPE pallet cover. 48 units per pallet.
- 20 kg PE bag, with PET strapping and LDPE pallet cover. 60 units per pallet.
- Airtight big bag with a capacity of 1,000 kg. 1 unit per pallet.

CALCEL EP is also supplied in bulk.

A weighted average has been applied in the study based on the different packaging compositions (79% post-consumer recycled PP, 6% post-consumer recycled PE, 6% PET, and 9% wood).

TECHNICAL CHARACTERISTICS · CALCEL EP

Composition	Units	Standard	Specification	
			Min.	Max.
Crushed Aggregate	%	EN 13043	94.0	95.0
Granulometry	mm	EN 12697-2	0	4/6
Binder Content	%	EN 12697-1	5,0	6,0
Density	Gr/cm³	EN 12697-6	1,7	2,0

TECHNICAL CHARACTERISTICS · CALCEL RED

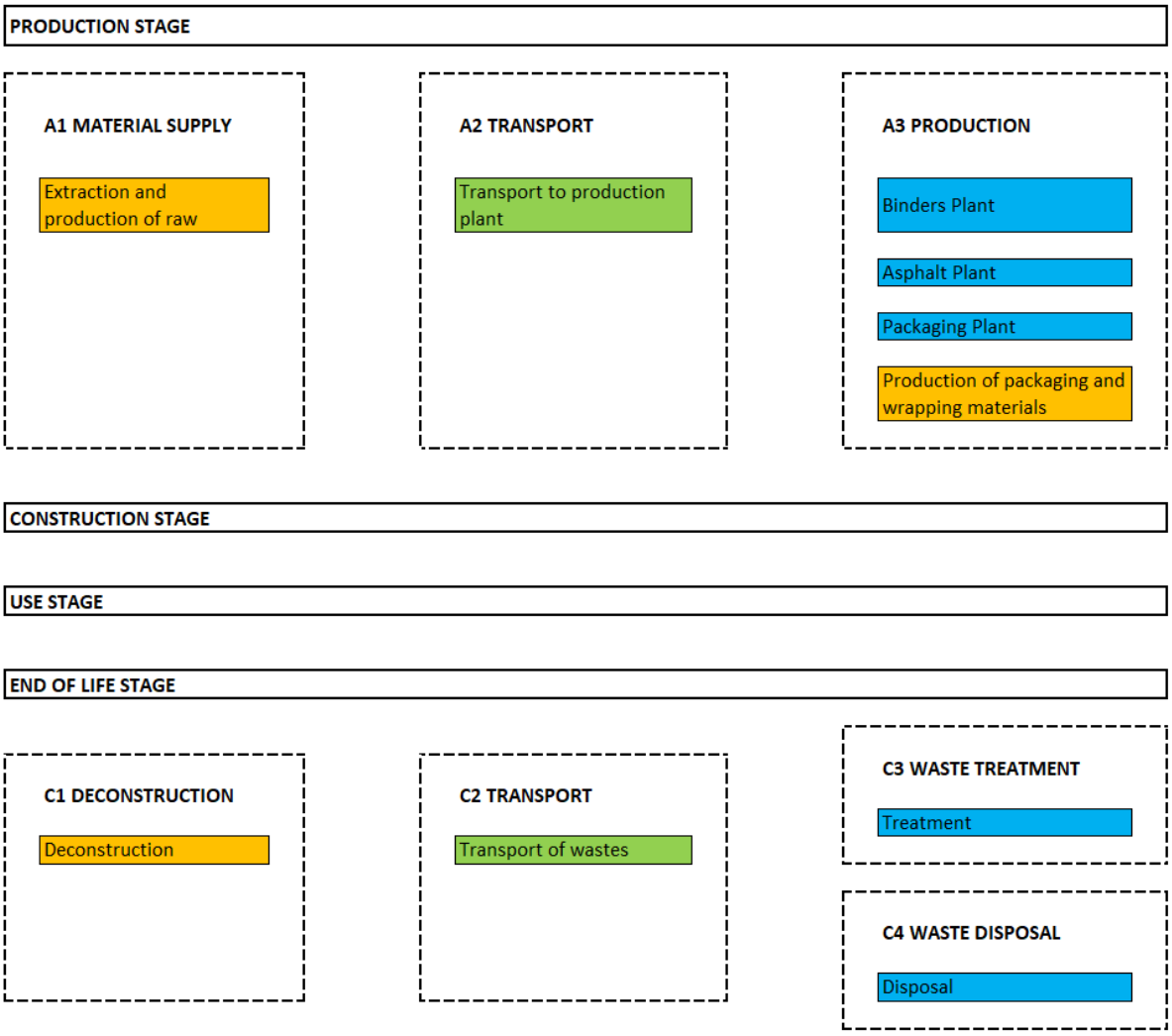
Composition	Units	Standard	Specification	
			Min.	Max.
Crushed Aggregate	%	EN 13043	94.0	95,0
Granulometry	mm	EN 12697-2	0	4/6
Binder Content	%	EN 12697-1	5,0	6,0
Density	Gr/cm³	EN 12697-6	1,7	2,0

TECHNICAL CHARACTERISTICS · CALCEL HF

Composition	Units	Standard	Specification	
			Min.	Max.
Crushed Aggregate	%	EN 13043	94.0	95.0
Granulometry	mm	EN 12697-2	0	4/6/8
Binder Content	%	EN 12697-1	5,0	6,0
Resin	%		0,1	2,0
Density	Gr/cm³	EN 12697-6	1,7	2,0

PRODUCTS - CALCEL EP - CALCEL ONE - CALCEL HF

LIFE CYCLE DIAGRAM



Variability of results

Indicator/Parameter	Coefficient of variation (%)
GWP-total – kg CO2 eq	**20,56**
GWP-fossil – kg CO2 eq	**18,26**
GWP-biogenic – kg CO2 eq	**-3,06**
GWP-luluc – kg CO2 eq	**37,50**
ODP - kg CFC 11 eq	**10,96**
AP - mol H·eq	**19,37**
EP-freshwater - kg P eq	**22,09**
EP-marine - kg N eq	**13,11**
EP-terrestrial - mol N eq	**13,70**
POCP - kg NMVOC eq	**14,91**
ADP-minerals&metals - kg Sb eq	**49,65**
ADP-fossil – MJ	**10,64**
WDP - m3 mundial eq. privada	**17,87**
GHG – kg CO2 eq	**18,25**

2. DESCRIPTION OF THE STAGES OF THE LIFE CYCLE

2.1. Manufacturing (A1, A2 y A3)

Raw Materials and transport (A1 y A2)

The first stage of the product's life cycle is the extraction and production of raw materials (various aggregates, binders, and additives), which corresponds to module A1.

The raw materials are supplied by different providers to the company in various formats:

- In bulk via tanker truck
- IBC (Intermediate Bulk Container)
- LDPE bag

The transport of raw materials and packaging materials is carried out by 27-ton trucks.

Manufacturing (A3)

The production of the cold-mix asphalt families is carried out in three production units within the SORIGUÉ industrial complex. The production units are as follows:

Binder plant, where the company's liquid additives are formulated.

Asphalt plant, where the CALCEL EP/RED/HF product ranges are manufactured and formulated.

Packaging plant, where the products are packaged in big bags, buckets, and sacks.

The CALCEL EP/RED/HF product ranges are manufactured as follows: The binders for these products are produced in the binder plant. Once produced, they are transferred to the asphalt plant, where they are mixed with the different aggregates required by each formulation. Once manufactured in bulk format, the product is transported to the packaging plant, where it is filled into the various packaging units.

Electricity, natural gas, and water consumption have been recorded for each of the production plants, along with the packaging materials used. Output flows include emissions from energy consumption and generated waste (sent to recycling or landfill).

The study uses the 2022 electricity mix from the supplier ENDESA, with an emission factor of 0.223 kg CO_2/kWh (Source: ETIQUETADO DE ELECTRICIDAD RESTANTE, CNMC, 2022).

2.2. Construction process stage (A4 y A5)

Transport to the building site (A4)

Undeclared

Product installation process and construction (A5)

Undeclared

2.3. Product use (B1-B7)

Use (B1)

Undeclared

Maintenance (B2)

Undeclared

Repair (B3)

Undeclared

Replacement (B4)

Undeclared

Refurbishment (B5)

Undeclared

Operational energy use (B6)

Undeclared

Operational water use (B7)

Undeclared

2.4. End of life (C1-C4)

Deconstruction and demolition (C1)

The material and energy consumption required for pavement demolition operations at the end of its service life are included. Once its service life is over, the product will be removed using a milling machine.

Transport to waste processing (C2)

At the end of its service life, the studied product is assumed to be transported by road over an average distance of 50 km to the nearest waste management facility, using EURO VI trucks with a capacity of 16–32 tonnes.

Waste processing for reuse, recovery and/or recycling (C3)

The waste scenario considered establishes that:

- 53.5% of the weight is processed at a plant to obtain secondary material for the production of new mixtures.
- 27.0% of the weight is used as aggregate or similar material.

Disposal (C4)

The waste scenario considered establishes that: 19.5% of the weight of the removed product is sent to landfill for disposal.

2.5. Reuse/recovery/recycling potential (D)

Module D reports the existence of environmental benefits or burdens occurring outside the system boundaries, generated by reusable products, recyclable materials, and/or useful energy carriers originating from the studied product system. The net impacts are declared, resulting from accounting for the impacts of the recycling processes and subtracting the impacts associated with the production of primary materials or fuels that are displaced or substituted by the recycled ones, taking into account the quality difference between primary and secondary materials.
The net value is calculated by subtracting the inputs of secondary materials from the outputs of secondary materials.

3. LIFE CYCLE ASSESSMENT

This study was carried out using the LCA software tool SimaPro 9.6.0.1 by PRé Sustainability, developed in accordance with the UNE-EN ISO 14040 and 14044 standards, and using the Ecoinvent v3.8 (2021) database.
This LCA follows a "cradle-to-gate with modules C1–C4 and D" approach, and therefore includes the following modules: A1–A3, C, and D. That is, it covers the product manufacturing stage, end-of-life stage, and potential loads and benefits related to secondary materials, energy, or fuels leaving the system from the product stage onward.

Specific data from the SORIGUÉ industrial complex (Balaguer, Lleida, Spain) for the year 2022 were used to inventory the manufacturing stage.

The study is based on UNE-EN 15804:2012+A2:2020 (including its correction UNE-EN 15804:2012+A2:2020/AC:2021), the PCR 100 (version 3.2 - 21/12/2023) "Construction products in general," and follows the principles of modularity and the "polluter pays" approach.

Allocation Procedures:
Whenever possible, allocation has been avoided.

- Secondary materials and waste recycling:
In the studied system, no secondary materials are included in the product compositions. Recycled material is only present in the packaging.
Post-consumer recycled materials enter the process without environmental burdens. The recycling process itself is accounted for within the system.
Recyclable waste is considered to reach “end-of-waste” status at the waste manager’s gate → only transport is accounted for.

- Data allocation between production plants:

Binder plant: Inputs (raw materials, energy, water) and outputs (binders, emissions) were considered. The impact per tonne of binder was calculated and then applied to the cold-mix asphalt according to its composition.

Asphalt plant: Inputs and outputs were included to calculate the impact of producing 1 tonne of cold-mix asphalt at this plant.

Packaging plant: Electricity consumption was differentiated between products that are mixed and packaged and those that are only packaged.

Total site production: It was assumed that waste and discharges per tonne are equivalent for all products.

The data quality was assessed using the methodology described in Annex E of UNE-EN 15804:2012+A2:2020, based on three criteria: geographical representativeness, technical representativeness, and temporal representativeness.

Most processes—including manufacturing, transport, installation, raw materials, packaging, energy, and waste—achieved the highest possible score (125 points). The data sources used include primary data from SORIGUÉ (2022) and well-recognized databases such as Ecoinvent v3.8, ensuring high technical, temporal, and geographical representativeness. No low-quality data were identified.

Therefore, the overall quality of the data used in the study is very good and appropriate for a reliable life cycle assessment.

3.1. Declared Unit

1 tonne of cold-mix asphalt CALCEL EP – CALCEL RED – CALCEL HF

Additional comments

-

3.2. Scope and modules that are declared

Table 2. Declared modules

Product stage			Construction Process Stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw materials supply	Transport	Manufacturing	Transport	Construction - Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	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	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

X = Declared module **MND** = Undeclared module

3.3. LCA results of potential environmental impact referred to the declared unit (ACV)

Table 3. Parameters of environmental impact

Parameter	Unit	Life cycle stage																Module D
		Product stage			Construction Process Stage		Use stage							End of life stage				
		A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Climate change - total (GWP-total)	kg CO2 eq	9,40E+00	1,15E+00	4,19E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	6,99E-01	6,60E+00	7,71E+00	3,89E+00	-1,27E+01
Climate change - fossil (GWP-fossil)	kg CO2 eq	1,90E+01	1,15E+00	4,19E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	6,98E-01	6,60E+00	0,00E+00	2,02E+00	-1,27E+01
Climate change - biogenic (GWP-biogenic)	kg CO2 eq	-9,58E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	7,71E+00	1,87E+00	0,00E+00
Climate change - land use and changes in land use (GWP-luluc)	kg CO2 eq	1,74E-02	4,53E-06	4,43E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	2,47E-04	2,60E-05	0,00E+00	4,58E-05	-2,75E-04
Ozone layer depletion (ODP)	kg CFC 11 eq	2,68E-05	2,97E-07	3,19E-05	MND	MND	MND	MND	MND	MND	MND	MND	MND	1,16E-07	1,71E-06	0,00E+00	1,79E-07	-2,54E-05
Acidification (AP)	mol H+ eq	2,14E-01	2,81E-03	1,43E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	2,67E-03	1,61E-02	0,00E+00	9,26E-03	-1,71E-01
Eutrophication of fresh water (EP-freshwater)	kg P eq	3,79E-04	3,73E-07	1,80E-03	MND	MND	MND	MND	MND	MND	MND	MND	MND	1,50E-05	2,14E-06	0,00E+00	1,25E-06	-2,71E-05
Eutrophication of sea water (EP-marine)	kg N eq.	3,34E-02	6,29E-04	2,25E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	7,77E-04	3,61E-03	0,00E+00	4,82E-03	-2,14E-02
Terrestrial eutrophication (EP-terrestrial)	mol N eq.	3,43E-01	7,13E-03	2,49E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	8,16E-03	4,10E-02	0,00E+00	4,19E-02	-2,35E-01
Photochemical ozone formation (POCP)	kg NMVOC eq	1,30E-01	2,14E-03	8,50E-02	MND	MND	MND	MND	MND	MND	MND	MND	MND	2,72E-03	1,23E-02	0,00E+00	1,18E-02	-9,65E-02
Depletion of abiotic resources - minerals and metals (ADP-minerals&metals)	kg Sb eq	1,05E-05	5,36E-08	8,14E-06	MND	MND	MND	MND	MND	MND	MND	MND	MND	1,89E-06	3,08E-07	0,00E+00	4,35E-08	-1,85E-06
Depletion of abiotic resources - fossil fuels (ADP-fossil)	MJ, net calorific value	1,68E+03	1,77E+01	9,22E+02	MND	MND	MND	MND	MND	MND	MND	MND	MND	9,42E+00	1,02E+02	0,00E+00	1,20E+01	-1,52E+03
Water consumption (WDP)	m3 worldwide eq. private	7,74E+00	1,42E-06	1,72E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	2,22E+00	7,71E-06	0,00E+00	9,55E-03	8,68E-02
Eco-toxicity - freshwater (ETP-fw)	CTUe	4,33E+02	4,20E+00	5,59E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	2,17E+00	2,41E+01	0,00E+00	4,19E+00	-3,60E+02
Human toxicity, cancer effect (HTP-c)	CTUh	3,40E-09	6,88E-12	9,46E-09	MND	MND	MND	MND	MND	MND	MND	MND	MND	8,86E-10	3,95E-11	0,00E+00	3,46E-11	-1,17E-09
Human toxicity, non-cancer effects (HTP-nc)	CTUh	1,12E-08	8,45E-11	1,23E-08	MND	MND	MND	MND	MND	MND	MND	MND	MND	5,43E-10	4,85E-10	0,00E+00	1,70E-09	-7,17E-09
The Indicador includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This Indicador is thus equal to the GWP Indicador originally defined in EN 15804:2012+A1:2013. Can be obtained from IPCC characterization factors.																		
Global Warming Potential (GHG)	kg CO2 eq	1,90E+01	1,15E+00	4,19E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	6,98E-01	6,60E+00	0,00E+00	2,02E+00	-1,27E+01

A1 Supply of raw materials. **A2** Transport to waste processing. **A3** Manufacturing. **A4** Transport to waste processing. **A5** Installation and construction processes. **B1** Use. **B2** Maintenance. **B3** Repair. **B4** Replacement. **B5** Refurbishment. **B6** Operational energy use. **B7** Operational water use. **C1** Deconstruction and demolition. **C2** Transport to waste processing. **C3** Waste management for reuse, recovery and recycling. **C4** Fine removal. **D** Environmental benefits and burdens beyond the system boundary. **MND** Undeclared module.

Table 4. Parameters for the use of resources, waste and output material flows

Parameter	Unit	Life cycle stage																Module D
		Product stage			Construction Process Stage		Use stage							End of life stage				
		A1	A2	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 feedstock	MJ, net calorific value	5,06E+01	1,64E-02	1,09E+02	MND	MND	MND	MND	MND	MND	MND	MND	MND	3,66E-01	9,42E-02	0,00E+00	1,06E+00	-1,21E+01
Use of renewable primary energy used as raw material	MJ, net calorific value	1,50E+02	0,00E+00	1,95E+02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renewable primary energy (primary energy and renewable primary energy resources used as feedstock)	MJ, net calorific value	2,00E+02	1,64E-02	3,04E+02	MND	MND	MND	MND	MND	MND	MND	MND	MND	3,66E-01	9,42E-02	0,00E+00	1,06E+00	-1,21E+01
Non-renewable primary energy use, excluding non-renewable primary energy resources used as feedstock	MJ, net calorific value	2,95E+02	1,88E+01	9,39E+02	MND	MND	MND	MND	MND	MND	MND	MND	MND	1,00E+01	1,08E+02	0,00E+00	1,27E+01	-1,61E+03
Use of non-renewable primary energy used as raw material	MJ, net calorific value	1,49E+03	0,00E+00	8,85E+02	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-1,20E+03	0,00E+00	0,00E+00
Total use of non-renewable primary energy (primary energy and renewable primary energy resources used as feedstock)	MJ, net calorific value	1,79E+03	1,88E+01	1,82E+03	MND	MND	MND	MND	MND	MND	MND	MND	MND	1,00E+01	1,08E+02	-1,20E+03	1,27E+01	-1,61E+03
Use of secondary materials	kg	0,00E+00	0,00E+00	2,57E+01	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of freshwater resources	m3	8,20E-01	9,09E-06	5,77E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	5,28E-02	5,22E-05	0,00E+00	3,23E-03	-2,59E-01
Hazardous waste removed	kg	7,82E-04	4,60E-05	6,59E-03	MND	MND	MND	MND	MND	MND	MND	MND	MND	2,83E-05	2,64E-04	0,00E+00	2,90E-05	-3,63E-04
Non-hazardous waste eliminated	kg	5,06E-01	7,77E-04	1,05E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	7,83E-02	4,46E-03	0,00E+00	1,95E+02	-1,15E-01
Radioactive waste disposed of	kg	1,16E-02	1,27E-04	3,98E-03	MND	MND	MND	MND	MND	MND	MND	MND	MND	5,63E-05	7,27E-04	0,00E+00	9,18E-05	-1,09E-02
Components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	2,70E+02	0,00E+00	0,00E+00
Materials for recycling	kg	2,58E-03	0,00E+00	5,44E-01	MND	MND	MND	MND	MND	MND	MND	MND	MND	6,38E-02	0,00E+00	5,35E+02	0,00E+00	0,00E+00
Materials for energy recovery (energy recovery)	kg	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ by energy vector	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported electrical energy (AEE)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported thermal energy (EET)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

A1 Supply of raw materials. **A2** Transport to waste processing. **A3** Manufacturing. **A4** Transport to waste processing. **A5** Installation and construction processes. **B1** Use. **B2** Maintenance. **B3** Repair. **B4** Replacement. **B5** Refurbishment. **B6** Operational energy use. **B7** Operational water use. **C1** Deconstruction and demolition. **C2** Transport to waste processing. **C3** Waste management for reuse, recovery and recycling. **C4** Fine removal. **D** Environmental benefits and burdens beyond the system boundary. **MND** Undeclared module.

Table 5. Kg of biogenic carbon

Carbon content (biogenic) - packaging	6,98E+00
Carbon content (biogenic) - product	2,61E+00

3.4. Recommendations of this EPD

The comparison of construction products must be made using the same functional unit and at the building level, meaning it must include the product's performance throughout its entire life cycle.
Environmental product declarations from different Type III ecolabelling schemes are not directly comparable, as the calculation rules may differ.

Construction product EPDs (DAPcons®) may not be comparable with other EPDs unless they are based on the EN 15804+A2:2020/AC:2021 standard.

This declaration represents the average performance of the cold-mix asphalt families CALCEL EP, CALCEL RED, and CALCEL HF manufactured by SORIGUÉ.

3.5. Cut-off rules

More than 95% of all mass and energy inputs and outputs of the system have been included. The excluded data are as follows:

• The production of machinery and industrial equipment, due to the difficulty of inventorying all the assets involved, and also because the LCA community considers that the environmental impact per unit of product is low compared to the other included processes.

3.6. Additional environmental information

No hazardous substances listed in the "Candidate List of Substances of Very High Concern (SVHC) for authorisation" are used during the product's life cycle.

3.7. Other data

The waste from the bituminous mixture is classified as non-hazardous waste in the European List of Waste under codes EWC 17 03 02 and EWC 10 12 08.

4. ADDITIONAL TECHNICAL INFORMATION AND SCENARIOS

4.1. Transport to the building site (A4)

Undeclared

4.2. Installation processes (A5)

Undeclared

4.3. Reference life (B1)

Undeclared

4.4. Maintenance (B2), Repair (B3), Replacement (B4), or Refurbishment (B5)

Maintenance (B2)

Undeclared

Repair (B3)

Undeclared

Replacement (B4)

Undeclared

Refurbishment (B5)

Undeclared

4.6. Operational energy use (B6) and operational water use (B7)

Undeclared

4.7. End of life (C1-C4)

	Process				
	Collection processes (specified by types)	Recovery systems (specified by type)			Elimination
	kg collected with mixed construction waste	kg for reuse	kg for recycling	kg for energy recovery	kg for final disposal
	1000	270	535	0	195
Assumptions for scenario development	An end-of-life scenario has been estimated as follows: 53.5% recycling, 27% reuse, and 19.5% landfill disposal. The transport of residual materials is carried out using a 27-ton EURO VI truck, and an average distance from the construction site to the waste management facilities has been estimated. An average distance of 50 km from the site to the management points is considered. Source: Sectoral EPD for Asphalt Mixtures – ASEFMA (GlobalEPD EN15804-045/048).				

5. ADDITIONAL INFORMATION

This DAPcons® has been developed in accordance with the mutual recognition process between the INIES program and the DAPconstrucción program.

The company holds the following certifications:

- Quality Management System certification according to ISO 9001:2015 (ER-0918/1998-001/00)
- Environmental Management System certification according to ISO 14001:2015 (GA-2001/0077-001/00)
- Occupational Health and Safety Management System certification according to ISO 45001:2018 (SST-0016/2015-001/00)
- Criminal Compliance Management System certification according to UNE 19601:2017 (GCP-2019/0033-006/00)

6. PCR AND VERIFICATION

This statement is based on Document

RCP 100 (version 3.2 - 21/12/2023) Construction products in general

Independent verification of the declaration and data, in accordance with ISO 14025 and IN RCP 100 (version 3.2 - 21/12/2023)

☑ External

Third party Verifier

DAVID PORRAS MELENDEZ
Accredited by the administrator of the DAPcons® Programme

Verification date:

09/09/2025

References

- LCA Report – Life Cycle Assessment of the product: Cold-mix asphalt families by SORIGUÉ. ReMa-INGENIERÍA, S.L. V2. August 2025. (Unpublished)
- Documentation for Duty Vehicle Processes in GaBi. February 2022
- Annex_C – Annex C to the PEF-OEF Methods V2.1_May 2020
- Handbook of Emission Factors for Road Transport (HBEFA). 2022
- GHG Inventory Report 1990–2020. Annex 7. Spain. 2022
- Electricity Labelling – CNMC. 2022
https://gdo.cnmc.es/CNMC/resumenGdo.do?anio=2022
- REE Electricity Mix 2022
https://www.ree.es/es/datos/generacion/estructura-generacion
- GlobalEPD EN15804-045 rev 1 – ASPHALT MIXTURES TYPE AC. ASEFMA
https://www.aenor.com/Producto_DAP_pdf/GlobalEPD%20EN15804-045%20rev%201%20MEZCLAS%20ASFÁLTICAS%20TIPO%20AC%20.pdf
- Comprehensive evaluation of energy consumption and carbon emissions of asphalt pavement recycling technology
Decai Wang, Lan Yang, Qunlei Zhang, Yuanxun Zheng, Lei Hu, Kai Cheng, Jiawei Wei. Case Studies in Construction Materials. Volume 20, July 2024
https://www.sciencedirect.com/science/article/pii/S2214509524001384
https://doi.org/10.1016/j.cscm.2024.e02987
- GENERAL GUIDELINES OF THE DAPconstrucción® OPERATOR PROGRAM FOR ENVIRONMENTAL PRODUCT DECLARATIONS IN THE CONSTRUCTION SECTOR. 5th revision: December 21, 2023
- PCR 100 – General construction products (version 3.2 – 21/12/2023) by DAPcons
- Technical data sheets of components

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ANEXO – ENVASES / *ANNEX – PACKAGING*

La siguiente tabla muestra los resultados de la categoría de impacto **'Cambio climático - total' (GWP-total)** para las distintas familias de producto, en función del tipo de envase utilizado.

*The following table shows the results for the impact category **Climate Change – total (GWP-total)** for the different product families, based on the type of packaging used.*

	GWP-total – kg CO2 eq	Fabricación - Production				Construcción Construction		Uso Use	Fin de vida – Endo f Life				Mod. D
Familia Family	Envase - Packaging	A1	A2	A3	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	
CALCEL EP	25 kg	8,54	0,97	53,70	63,21	MND	MND	MND	0,70	6,60	7,70	3,89	-12,70
	20 kg	8,54	0,97	45,00	54,51	MND	MND	MND	0,70	6,60	7,70	3,89	-12,70
	1000 kg	8,54	0,97	26,90	36,41	MND	MND	MND	0,70	6,60	7,70	3,89	-12,70
	500 kg	8,54	0,97	26,90	36,41	MND	MND	MND	0,70	6,60	7,70	3,89	-12,70
	Granel	8,54	0,97	12,20	21,71	MND	MND	MND	0,70	6,60	7,70	3,89	-12,70
CALCEL RED	25 kg	14,40	1,03	54,90	70,33	MND	MND	MND	0,70	6,60	7,62	3,87	-12,70
	20 kg	14,40	1,03	46,20	61,63	MND	MND	MND	0,70	6,60	7,62	3,87	-12,70
	1000 kg	14,40	1,03	28,00	43,43	MND	MND	MND	0,70	6,60	7,62	3,87	-12,70
	500 kg	14,40	1,03	28,00	43,43	MND	MND	MND	0,70	6,60	7,62	3,87	-12,70
	Granel	14,40	1,03	12,10	27,53	MND	MND	MND	0,70	6,60	7,62	3,87	-12,70
CALCEL HF	25 kg	24,20	5,35	55,00	84,55	MND	MND	MND	0,70	6,60	8,16	4,00	-12,70
	20 kg	24,20	5,35	46,30	75,85	MND	MND	MND	0,70	6,60	8,16	4,00	-12,70
	1000 kg	24,20	5,35	28,20	57,75	MND	MND	MND	0,70	6,60	8,16	4,00	-12,70
	500 kg	24,20	5,35	28,20	57,75	MND	MND	MND	0,70	6,60	8,16	4,00	-12,70
	Granel	24,20	5,35	12,30	41,85	MND	MND	MND	0,70	6,60	8,16	4,00	-12,70