

ENVIRONMENTAL PRODUCT DECLARATION TYPE III ITB NO. 953/2026

ISSUANCE DATE: 14.04.2026 | VALIDATION DATE: 06.05.2026 | INVALIDITY DATE: 14.04.2031

ULTRASEAL[®] XP

WATERPROOFING MEMBRANE



Owner of the EPD

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ITB is the verified member of
The European Platform
for EPD program
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www.eco-platform.org



MANUFACTURER

CETCO is the construction technologies business unit of Minerals Technologies Incorporated, established in 1992. Minerals Technologies Inc. is a manufacturer of minerals-based application technology with operations spanning over 30 countries and 158 locations. Our international team of clay mineralogists, chemists and polymer scientists, transforms ordinary minerals into extraordinary technology. CETCO-Poland, Cetco Sp. z o.o. S.K.A. is the Polish headquarter of the company located in Szczytno where, since 1998, the largest CETCO production plant in Europe and modern research and development laboratory have operated.

PASSION FOR INNOVATION

Our multidisciplinary research and development team creates new products and provides the support our customers need. Our growing portfolio demonstrates our commitment to technological innovation across the markets that we serve.

BASIC INFORMATION

This declaration is the Type III Environmental Product Declaration (EPD) based on EN 15804+A2 and verified according to ISO 14025 by an external auditor. It contains the information on the impacts of the declared construction materials on the environment. Their aspects were verified by the independent body according to ISO 14025. Basically, a comparison or evaluation of EPD data is possible only if all the compared data were created according to EN 15804 (see point 5.3 of the standard).

Life cycle analysis (LCA):

A1-A4, C1-C4 and D in accordance with EN 15804 (Cradle-to-Gate with options)

The year of preparing the EPD:

2026

Product standard:

EN 13967:2012; EN 13491:2004/A1:2006

Service Life:

25 years for standard product

PCR:

ITB-PCR A (PCR based on EN 15804)

Declared unit:

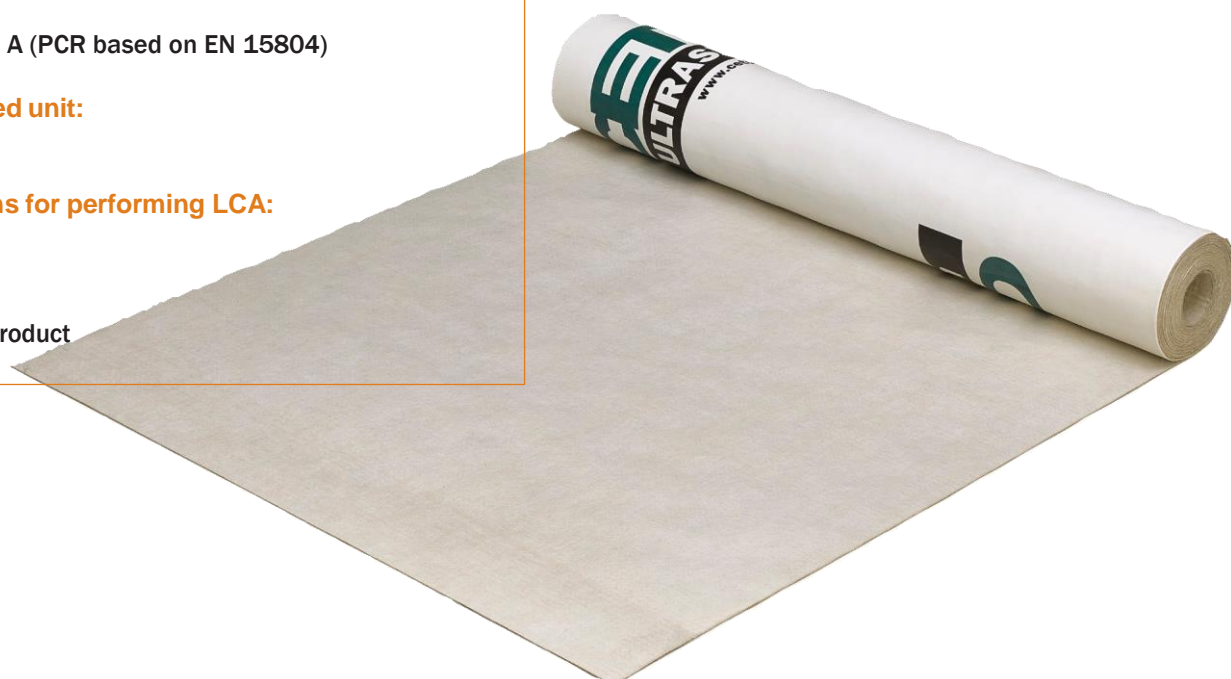
1 m²

Reasons for performing LCA:

B2B

Origin:

Polish product



PRODUCT DESCRIPTION AND APPLICATION

ULTRASEAL® XP active polymer waterproofing membrane features XP technology, the latest innovation in active waterproofing. This advanced polymer technology provides performance in a wide range of ground contaminants, including high-saline conditions. Unlike passive membranes when used alone, the self-sealing ability of the active XP technology enables the ULTRASEAL® XP waterproofing membrane to seal minor cuts or damage to the membrane. And most importantly, it has been proven effective in both hydrostatic and non-hydro static conditions. ULTRASEAL® XP works by forming a low permeability membrane upon contact with water. When hydrated, the unconfined membrane can swell many times its dry volume. When confined by backfill or concrete the swell is controlled, forming a dense, impervious waterproofing membrane. This swelling action can seal small concrete cracks caused by ground settlement and concrete shrinkage.

When concrete is poured against the XP geotextile side, ULTRASEAL® XP forms a mechanical bond. It contains zero VOCs, and can be installed in almost any weather condition directly to green concrete.

Table 1 Properties of the ULTRASEAL® XP

Parameter	Reference	Typical value
Hydrostatic pressure resistance	ASTM D5385 (Mod.)	70 m
Elongation at break break	EN ISO 527	25%
Adhesion to concrete	ASTM D903 (Mod.)	1.7 kN/m
Puncture strength	EN ISO 12236	3.0 kN
Flexibility at low temperature	ASTM D1970	no changes at -32°C
Tensile strength	EN ISO 527	8.0 N/mm ²

Waterproofing membrane ULTRASEAL® XP should be used in strict accordance with the manufacturer's instructions and applying accessories, protections and drainage layers as required. ULTRASEAL® XP should be laid so that the geotextile XP is in direct contact with the concrete structure.

According to the producer, XP technology is resistant to a wide range of factors, including high salinity ground and water conditions, organic solvents, and can be used frequently in brownfields requiring land remediation due to environmental protection.

Delivery and Packaging

ULTRASEAL® XP is available in rolls with dimensions:

1.15 m × 8.7 m = 10 m², 2.3 m × 8.7 m = 20 m² and 2.3 m × 35 m = 80.5 m².

Placing on the market

EN 13491:2004 + EN 13491:2004/A1:2006; EN 13967:2012; can be used as waterproofing barrier as per regulation EU number 305/2011 of 9 March 2011 applies for placing on the market within the European Harmonized Standards listed below.

- EN 13491:2004 + EN 13491:2004/A1:2006 Geosynthetic barriers – Characteristics required for use as a fluid barrier in the construction of tunnels and underground structures
- EN 13967:2012/A1:2016 – Flexible sheets for waterproofing – Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet – Definitions and characteristics

LIFE CYCLE ASSESSMENT (LCA) – GENERAL RULES APPLIED

Allocation

The allocation rules used for this EPD are based on general ITB PCR A. Production of ULTRASEAL® XP is a line process conducted in the factory of CETCO-Poland, Cetco Sp. z o.o. S.K.A. Allocation was done on product mass basis. All impacts from raw materials extraction and processing are allocated in module A1 of the LCA. Impacts from the global line production of CETCO-Poland, Cetco Sp. z o.o. S.K.A were inventoried and were allocated to ULTRASEAL® XP production. Water and energy consumption, associated emissions and generated wastes are allocated to module A3.

System Limits

The life cycle analysis (LCA) of the declared products covers: product stage – modules A1-A4, end of life – modules C1-C4 and benefits and loads beyond the system boundary – module D (cradle-to-gate with options) in accordance with PN-EN 15804+A2 and ITB PCR A. Energy and water consumption, emissions as well as information on generated wastes were inventoried and were included in the calculations. It can be assumed that the total sum of omitted processes does not exceed 5% of all impact categories. In accordance with PN-EN 15804+A2, machines and facilities (capital goods) required for the production as well as transportation of employees were not included in LCA.

Modules A1 and A2:

Raw materials supply and transport

Raw materials supply and transport geosynthetics, polymers and packaging materials come from both local and foreign suppliers. Bentonite used in the analyzing period of 2020 originated from Turkish and other resources. Means of transport include trucks with load: <10t, 10 – 16t and >16 and ships with load > 3000t. For calculation purposes Polish and European fuel averages are applied.

Module A3: Production

The production process of ULTRASEAL® XP by CETCO-Poland, Cetco Sp. z o.o. S.K.A. is presented in Fig. 1.

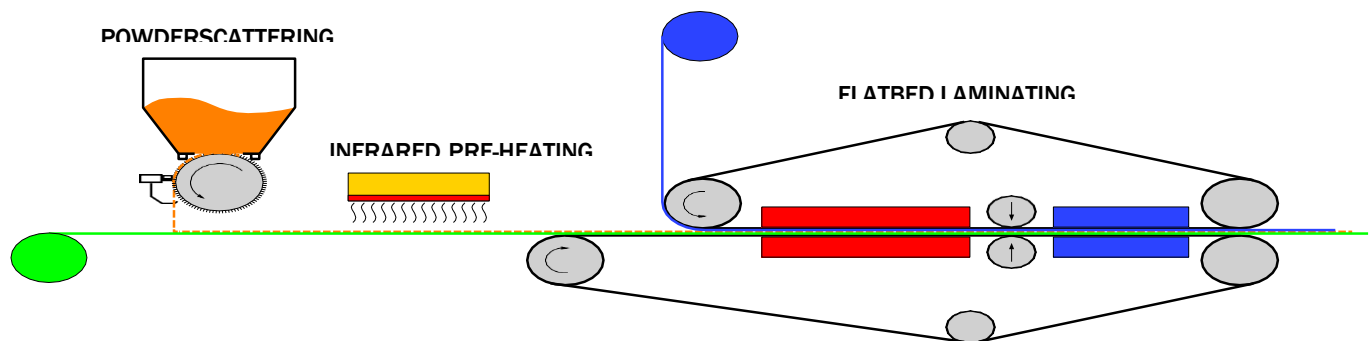


Fig. 1. A schematic of manufacturing ULTRASEAL® XP

Module A4: Transport to consumer

Transport of the place of construction from the Factory to the construction site is carried out using specialized vehicles at customer's request, depending on the terms of the contract. Vehicle transport at distance 100 km is considered (emission standard: Euro 5) with 100% load capacity.

Modules C3, C4 and D: End-of-Life (EoL)

It is assumed that at the end of life membranes remain underground, in the place of installation (100% of landfilling). Environmental burdens occurring in module C4 are associated with exchanges to process-specific burdens (energy, land use), emissions to air via landfill gas incineration and landfill leachate. Impacts of packaging materials that constitute less than 1.0% of the total system flows was not taken into consideration. In the adapted end-of-life scenario, the de-constructed products are transported by 100 km on > 16t lorry EURO 5.

End-of-Life (modules C and D)

Material	Material Recovery	Landfilling
Hydrophilic polymer	0%	100%
Geotextile	0%	100%

LIFE CYCLE ASSESSMENT (LCA) – GENERAL RULES APPLIED

Data Collection Period

The data for manufacture of the declared products refer to period between 01.01.2024 – 31.12.2024 (1 year). The life cycle assessments were prepared for Poland as reference area.

Data Quality

The values determined to calculate the LCA analysis originate from verified CETCO-Poland, Cetco Sp. z o.o. S.K.A. inventory data. No data collected is older than five years and no generic datasets used are older than ten years. The representativeness, completeness, reliability, and consistency is judged as good. The background data for the processes come from the following resources database Ecoinvent v.3.11 (polymers, rubber, foils, textile). Specific (LCI) data quality analysis was a part of the input data verification. Where no background data was available, data gaps were complemented by manufacturer information and literature research.

Assumptions and Estimates

The impacts of the representative of ULTRASEAL® XP were aggregated using weighted average. Impacts were inventoried and calculated for all ULTRASEAL XP MEMBRANES system products.

Calculation Rules

LCA was done in accordance with ITB PCR A document. LCA was performed using ITB-LCA tool developed in accordance with EN15804+A2. Emission of greenhouse gases was calculated using the IPCC GWP method with a 100-year horizon. Emission of acidifying substances, emission of substances to water contributing to oxygen depletion, emission of gases that contribute to the creation of ground-level ozone, abiotic depletion, and ozone depletion emissions were all calculated with the EF 3.1. method. No mass balance approach was used. Biogenic content less than 5%.

Additional information

Polish electricity mix used is 0.553 kg CO₂/kWh (KOBiZE 2024). European electricity mix used is 0.43 kg CO₂/kWh (Ecoinvent v3.11, RER). As a general rule, no particular environmental or health protection measures other than those specified by law are necessary.

Databases

The data for the processes come from the following databases: Ecoinvent v.3.11, specific EPDs, ITB-Data. Specific data quality analysis was a part of external audit.

LIFE CYCLE ASSESSMENT (LCA) – GENERAL RULES APPLIED

LIFE CYCLE ASSESSMENT (LCA) – RESULTS

Declared Unit

The declaration refers to declared unit (DU) – 1 m² of ULTRASEAL® XP by CETCO-Poland, Cetco Sp. zo.o. S.K.A.

Environmental Assessment Information

(MD – Module Declared, MND – Module Not Declared, INA – Indicator Not Assessed)

Product stage	Raw material supply	A1	MD
	Transport	A2	MD
	Manufacturing	A3	MD
Construction process	Transport to construction site	A4	MD
	Construction-installation process	A5	MND
Use stage	Use	B1	MND
	Maintenance	B2	MND
	Repair	B3	MND
	Replacement	B4	MND
	Refurbishment	B5	MND
	Operational energy use	B6	MND
	Operational water use	B7	MND
End of life	Deconstruction demolition	C1	MD
	Transport	C2	MD
	Waste processing	C3	MD
	Disposal	C4	MD
Benefits and loads beyond the system boundary	Reuse-recovery-recycling potential	D	MD

Table 1. System boundaries for the environmental characteristic of the ULTRASEAL® XP manufactured by CETCO-Poland, Cetco Sp. z o.o. S.K.A.

Table 4. Life cycle assessment (LCA) results for specific product – environmental impacts (DU: 1 m²)

Indicator	Unit	A1	A2	A3	A1-A3	A4	C1	C2	C3	C4	D
Consumption of renewable primary energy - excluding renewable primary energy sources used as raw materials	MJ	4.31E-01	3.33E-02	5.06E-02	2.60E-01	8.41E-03	3.18E-02	6.78E-03	3.39E-03	4.09E-03	-3.87E-02
Consumption of renewable primary energy resources used as raw materials	MJ	3.04E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total consumption of renewable primary energy resources	MJ	1.04E+00	6.21E-02	5.08E-02	5.45E-01	8.41E-03	3.18E-02	6.78E-03	3.39E-03	4.09E-03	-3.87E-02
Consumption of non-renewable primary energy - excluding renewable primary energy sources used as raw materials	MJ	1.11E+01	1.21E+00	6.82E-01	1.24E+01	5.17E-01	4.30E-01	4.73E-01	2.36E-01	2.52E-01	-3.37E-01
Consumption of non-renewable primary energy resources used as raw materials	MJ	5.62E+00	0.00E+00	0.00E+00	5.60E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total consumption of non-renewable primary energy resources	MJ	2.82E+01	3.59E+00	7.80E-01	3.07E+01	5.17E-01	4.30E-01	4.73E-01	2.36E-01	2.52E-01	-3.37E-01
Consumption of secondary materials	kg	3.07E-03	6.36E-04	6.94E-05	2.30E-03	2.31E-04	3.92E-05	1.59E-04	7.93E-05	0.00E+00	-2.04E-04
Consumption of renew. secondary fuels	MJ	5.13E-03	6.93E-06	3.50E-07	6.99E-04	3.03E-06	2.19E-07	1.75E-06	8.73E-07	0.00E+00	-1.24E-05
Consumption of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	5.49E-04	5.49E-04	0.00E+00	3.47E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net consumption of freshwater	m3	1.15E-02	2.32E-04	5.52E-04	1.14E-02	6.25E-05	1.17E-04	5.95E-05	2.97E-05	3.64E-05	-6.11E-04

Table 5. Life cycle assessment (LCA) results for specific product – environmental impacts (DU: 1 m²)

Indicator	Unit	A1	A2	A3	A1-A3	A4	C1	C2	C3	C4	D
Hazardous waste	kg	1.10E-01	2.12E-03	8.84E-04	1.10E-01	7.41E-04	4.44E-06	5.31E-04	2.65E-04	3.67E-07	-2.35E-03
Non-hazardous waste	kg	2.36E-01	5.67E-02	1.25E-03	1.99E-01	1.59E-02	2.31E-04	9.42E-03	4.71E-03	9.61E-01	-6.55E-02
Radioactive waste	kg	1.34E-05	1.64E-05	5.39E-07	2.67E-05	1.52E-07	3.22E-07	3.53E-08	1.77E-08	1.42E-06	-8.88E-07
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	8.29E-04	2.01E-05	4.98E-03	5.80E-03	6.19E-06	4.44E-07	1.46E-06	7.32E-07	0.00E+00	-4.56E-06
Materials for energy recovery	kg	8.74E-07	7.85E-08	3.45E-02	3.45E-02	3.28E-08	3.89E-09	1.18E-08	5.92E-09	0.00E+00	-4.23E-07
Exported Energy	MJ	1.63E+00	8.35E-04	2.04E-03	1.63E+00	2.26E-04	1.28E-03	0.00E+00	0.00E+00	0.00E+00	-9.15E-04

Verification

The process of verification of this EPD is in accordance with ISO 14025. After verification, this EPD is valid for a 5-year-period. EPD does not have to be recalculated after 5 years, if the underlying data have not changed significantly.

The basis for LCA analysis was PN-EN 15804 and ITB PCR A

Independent verification corresponding to ISO 14025 (subclause 8.1.3.)

● external

internal

External verification of EPD: Ph.D. Halina Prejzner

LCI data, audit and verification: M.Sc. Eng. Michał Chwedaczuk

LCA data verification: Ph.D., D.Sc., Eng. Michał Piasecki

Note 1: The declaration owner has the sole ownership, liability, and responsibility for the information provided and contained in EPD. Declarations of construction products may not be comparable if they do not comply with EN 15804+A2. For further information about comparability, see EN 15804+A2 and ISO 14025.

Note 2: ITB is a public Research Organization and Notified Body (EC Reg. no 1488) to the European Commission and to other Member States of the European Union designated for the tasks concerning the assessment of building products' performance. ITB acts as the independent, third-party verification organization (see ISO 17025/17065/17029). ITB-EPD program is recognized and registered member of The European Platform - Association of EPD program operators and ITB-EPD declarations are registered and stored in the international ECO-PORTAL.

Normative references

- ITB PCR A General Product Category Rules for Construction Products
- ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures
- ISO 21930:2017 Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services
- ISO 14044:2006 Environmental management – Life cycle assessment – Requirements and guidelines
- ISO 15686-1:2011 Buildings and constructed assets – Service life planning – Part 1: General principles and framework
- ISO 15686-8:2008 Buildings and constructed assets – Service life planning – Part 8: Reference service life and service-life estimation
- PN-EN 15804 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products
- PN-EN 15942:2012 Sustainability of construction works – Environmental product declarations – Communication format business-to-business
- Department for Business, Energy & Industrial Strategy. Calorific values and density of fuels, 2024. <https://www.gov.uk/>
- KOBIZE Wskaźniki emisyjności CO₂, SO₂, NO_x, CO i pyłu całkowitego dla energii elektrycznej. Grudzień 2024
- EN 13967:2012 Flexible sheets for waterproofing - Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet - Definitions and characteristics
- EN 13491:2004/A1:2006 Geosynthetic barriers - Characteristics required for use as a fluid barrier in the construction of tunnels and underground structures

LCA LCI, input data verification
Michał Piasecki, Ph.D. D.Sc.

Qualified electronic signature

Head of Thermal Physic, Acoustic and Environment Department
Agnieszka Winkler-Skalna, Ph.D.

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CERTIFICATE № 953/2026
of TYPE III ENVIRONMENTAL DECLARATION

Product:
ULTRASEAL® XP
WATERPROOFING MEMBRANE

Manufacturer:
CETCO-Poland, Cetco Sp. z o.o. S.K.A

Korpele No. 13A - Zone, 12-100 Szczytno, Poland

confirms the correctness of the data included in the development of
Type III Environmental Declaration and accordance with the requirements of the standard

EN 15804+A2

Sustainability of construction works.
Environmental product declarations.
Core rules for the product category of construction products.

This certificate, issued for the first time on
14th April 2026
is valid for 5 years or until amendment of mentioned Environmental Declaration

Head of the Thermal Physic, Acoustics
and Environment Department

Agnieszka Winkler-Skalna, PhD



Deputy Director
for Research and Innovation

Krzysztof Kuczyński, PhD

Warsaw, April 2026

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OUR STANDARDS. YOUR PEACE OF MIND.

