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EPDS FOR ZINCO GREEN ROOF SYSTEMS

ENVIRONMENTAL PRODUCT DECLARATION

LIFE ON ROOFS

ZINCO
— HOLCIM

ENVIRONMENTAL PRODUCT DECLARATI

EPDs for Zinco Green Roof Systems

ON

High Line Park, New York City

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FUTURE-ORIENTED GREEN ROOFS WITH VERIFIED ENVIRONMENTAL PERFORMANCE

While society strives to reduce its carbon footprint and achieve net zero in environmental protection, i.e. to reduce greenhouse gas emissions as far as possible, international standards for demonstrating the environmental performance of products are becoming increasingly important. The standard that has gained widespread acceptance worldwide, not only in the construction sector, is the Environmental Product Declaration (EPD).

With its first core EPD, Zinco was already a pioneer in the green roof market in 2020. By now, nearly all Zinco products for green roof systems are fully documented in the EPDs.

RECYCLING

At Zinco, sustainability is not just an aspiration. It's a principle we have put into practice for decades. For more than 35 years, we have relied on locally produced substrates made from high-quality recycled clay bricks - a resource-efficient approach that has defined our products from the very beginning. Wherever technically feasible, we also use recycled materials in other functional layers. Zinco protection mats and drainage elements for green roofs are predominantly made from 100% recycled materials. Only filter sheets and root barriers are manufactured from virgin materials. However, their proportion within the overall green roof build-up is negligible.

EPDS
ENVIRONMENTAL PERFORMANCE OF CONSTRUCTION PRODUCTS

WHAT IS AN ENVIRONMENTAL PRODUCT DECLARATION?

EPDs provide data on all relevant environmental impacts of construction products over their entire life cycle. All data are reviewed and verified by an independent body. They include, for example, information on energy and resource use, waste generation and the extend to which a product contributes to the global warming potential, ozone depletion and smog formation.

EPDs have a validity period of five years.

NORMATIVE BASIS FOR EPDS

The key standard EN 15804 for Environmental Product Declarations is widely used worldwide in the construction products sector. In July 2019, it underwent a significant revision to EN 15804+A2, which has been mandatory for all new EPDs since October 2022. Zinco EPDs are based both on EN 15804+A2 and on the international standard ISO 14025 (Environmental labels and declarations: requirements for Type III environmental declarations).

EPDS FOR ZINCO GREEN ROOF SYSTEMS

Zinco provides verified EPDs for green roof systems. These are based on the service lives of components specified by the Federal Ministry of Housing, Urban Development, and Building for life cycle assessments in accordance with the Assessment System for Sustainable Building (BNB).

All Zinco EPDs are reviewed and verified by 'epd global' – an independent third party – for completeness, plausibility and compliance with standards. Verification by independent third parties ensures the credibility and reliability of the information presented.

LIFE CYCLE STAGES, EPD & LCA OVERVIEW

WHICH LIFE CYCLE STAGES ARE COVERED BY EPDS?

Within an Environmental Product Declaration (EPD), there are different ways of compiling data depending on the product life cycle being considered. A distinction is made between:

- Cradle-to-Gate (production up to the factory gate)
- Cradle-to-Grave (production to end end-of-life)
- Cradle-to-Cradle (production to reuse or recycling)

When using environmental data, it is therefore necessary to check the specified life cycle stages and the underlying standards in order to enable data comparability. The Product Category Rule (PCR) used for the respective product, in this case a green roof system, specifies which phases must be included.

Zinco EPDs cover the product life cycle from product manufacture to installation of the green roof system and also consider the reuse or recycling potential beyond the end of life.

WHAT DISTINGUISHES AN LCA FROM AN EPD?

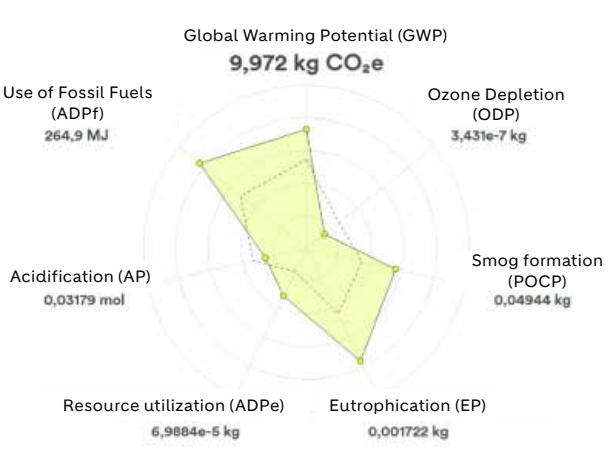
Zinco LCAs (Life Cycle Assessment) clearly summarize the key environmental data, that also is the basis of an EPD. An LCA can be provided as a manufacturer's declaration for all project project-specific Zinco green roof systems. They enable a flexible and project-specific assessment of the environmental impacts of individual system solutions.

→ Click here to go directly to the EPD database from epd-global: www.epd-global.com/epder/#googtrans(no|de)

EPDS AND LCAS AS A GATEWAY TO PUBLIC CONSTRUCTION PROJECTS AND GREATER SUSTAINABILITY

EPDs and LCAs enable comparisons between green roof systems and thus form an important basis for the sustainability assessment of buildings. By taking all relevant environmental indicators into account, they make an important contribution to a sustainable, resource-efficient and responsible economy and facilitate access to publicly tendered construction projects. EPDs can also be part of the EU criteria for environmentally oriented public procurement (Green Public Procurement, GPP). The aim is to promote the use of products with a lower environmental impact in terms of their sustainability.

We would be happy to send you EPDs for our green roof systems upon request.



Example: Environmental impact of the Zinco green roof system "Bee Pasture"

CERTIFICATIONS & SUBSIDY MEASURES

EPDS AS THE BASIS FOR GREEN BUILDING CERTIFICATIONS, SUBSIDY MEASURES, AND TAXONOMY COMPLIANCE

An EPD provides designers, contractors, and building owners with the environmental data required for building sustainability certifications such as DGNB, BREEAM, or LEED. Environmental product declarations also form the basis for public funding and financing of environmentally friendly construction.

DATA EXCHANGE FOR BUILDING CERTIFICATION SYSTEMS

EN 15804+A2 also addresses the data format and stipulates that the data must be available in the International Reference Life Cycle Data System (ILCD) format. Technically speaking, the ILCD format is an XML file and serves to improve data exchange, nomenclature, and data classification. The data can be provided in the desired format (PDF or XML).

OVERVIEW OF THE EPDS CURRENTLY AVAILABLE FOR ZINCO SYSTEM STRUCTURES

We would be happy to send you these EPDs on request.

LCAs for other system structures and for your project project-specific planning are also available.

Click here to go directly to the EPD database from epd-global and Ecoplatform:

www.epd-global.com/epder/#googtrans(no|de)

https://eco-portal.eco-platform.org/

SYSTEM BUILD-UP	GWP (kg CO_2e *)
Bee Pasture with Floradrain® FD 25-E	7,69
Roof Garden with Floradrain® FD 60 neo	14,49
Heather with Lavender with Floradrain® FD 40-E	8,16
Slightly Pitched Green Roof with Floraset® FS 50	6,74
Stormwater Management Roof Type Roof Garden with Retention Spacer RS 60	12,88
Stormwater Management Roof Type Roof Garden with Retention Spacer RSX 70	19,68
Stormwater Management Roof Type Heather with Lavender with Retention Spacer RS 60	10,97
Stormwater Management Roof Type Rockery Type Plants with Retention Spacer RS 60	9,97
Pitched Green Roof with Floraset® FS 75	9,43
Sedum Carpet with Floradrain® FD 25-E	5,99
Sedum Carpet with Fixodrain® XD 20	2,9
SolarVert®	21,14
Steep Pitched Green Roof with Georaster®	19,15
Rockery Type Plants with Floradrain® FD 25-E	6,85
Underground Garage with Protectodrain® PD 250	24,78

* Specification per 1 m ² for production stages A1 A1–A3

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