Transparency through Standardization: Environmental Product Declarations (EPDs)

WHAT IS AN EPD?

Environmental Product Declarations (EPDs) are comparable to a "nutrition label" for products which report a selection of environmental impacts. These third-party verified EPDs are what we use to provide environmental information on our products. Because of this verification, we're able to confidently assert the sustainable benefits of products like **EvoBuild™ low carbon concrete** as compared to industry benchmarks. The value to our customers is clear; they're able to compare the embodied carbon impacts of different mixes and materials to select the most sustainable option. It also helps our business by providing visibility into our entire supply chain and where we can optimize solutions to potentially help reduce the environmental impacts.

Lehigh Hanson
HEIDELBERGCEMENT Group

ENVIRONMENTAL PRODUCT DECLARATION

This Environmental Product Declaration (EPD) reports the impacts for 1 m of ready mixed concrete mix, meeting the following specifications:

- ASTM C94: Ready-Mixed Concrete
- UNSPSC Code 30111505: Ready Mix Concrete
- CSA A23.1/A23.2: Concrete Materials and Methods of Concrete Construction
- CSI Division 03-30-00: Cast-in-Place Concrete

ENVIRONMENTAL IMPACTS

Declared Product:
Mix: GC25D37B0C08
Description: GENERAL 25MPA 14MM F2
Compressive strength: 25 MPa at 28 days

Declared Unit: 1 m^3 of concrete

Global Warming Potential (kg CO_2-eq)	213
Ozone Depletion Potential (kg CFC-11-eq)	6.84E-6
Acidification Potential (kg SO_2-eq)	0.90
Eutrophication Potential (kg N-eq)	0.22
Photochemical Ozone Creation Potential (kg O_3-eq)	24.3
Abiotic Depletion, non-fossil (kg Sb-eq)	5.68E-6
Abiotic Depletion, fossil (MJ)	1,210
Total Waste Disposed (kg)	0.28
Consumption of Freshwater (m)	4.19

Similar to a "nutrition label," EPDs transparently communicate the environmental performance or impact of a product or material

OPERATIONAL VS. EMBODIED CARBON: EPDs & PAST BENCHMARKS

Understanding carbon reduction levers is important, but having a way to uniformly measure a product's environmental impact is just as crucial. EPDs offer that accounting, furthering the transparency behind sustainability claims.

The basis of LEED, they remain relevant but are only part of the story

OPERATIONAL CARBON EMISSIONS
Things like water usage & energy efficiency

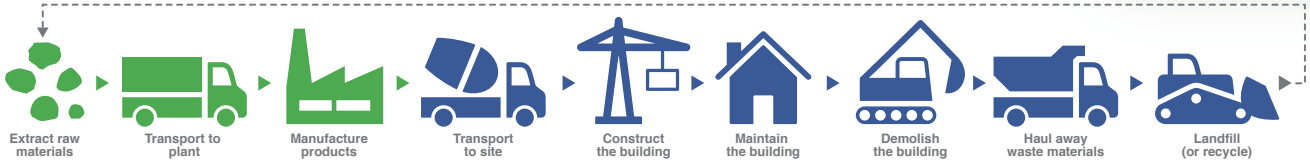
Newly introduced, third-party verified, and widely recognized

TRANSPARENCY
EPDs, like a nutrition label for materials, allow for optimization based on environmental impact

At the center of Global Sustainability Commitments

EMBODIED CARBON EMISSIONS
Considers full life cycle of a product and full carbon footprint.

LIFE CYCLE ASSESSMENT (LCA)
This method looks at the environmental impacts associated with all stages of a product's life. This information is the basis for the EPD.



As part of the circular economy, concrete can be recycled at the end of its life and reintroduced into the lifecycle of new products.

Parts of the life cycle included in a concrete EPD

Embodied Carbon: Comprised of the emissions from the acquisition (ie., mining), manufacturing, transportation, installation, maintenance and end-life of building materials.

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