# edge impact.

# Australian EPDs for Building Products

Jonas Bengtsson

PRESENTATION | AUGUST 2024

### What are Environmental Product Declarations and why are they important?

EPDs are independently verified and registered documents that provide transparent and comparable data about the life-cycle environmental impact of products.

EPDs enable engineers, architects, and specifiers to understand and compare the embodied carbon impact of the materials supplied into their projects.

EPDs can help customers compare and choose the best product to meet IS and Green Star ratings.



120,000 EPDs for construction products available globally, published through 40 programmes

Source: constructionIca.co.uk



**300 EPDs published through EPD** 

Australasia, from 100+ companies

# What to look for in comparing EPDs from different suppliers

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### What to look for

ISO 14025 is the generic EPD standard

The EN 15804 standard defines how companies should proceed to create EPDs in construction industries.

EN 15804 ensures EPDs can be compared and combined into building scale Life Cycle Assessments

COMPARABILITY (EN 15804)
COMPREHENSIVE
VERIFIED
CREDIBLE PROGRAMME

Of the 120,000 EPD for construction products, only about 40,000 use EN 15804

## What to look for

**EPDs** provide comprehensive information, covering:

- General Information
- Information on LCA Methodology
- Product Information
- Impact Results
- Additional Information

COMPARABILITY (EN 15804) COMPREHENSIVE VERIFIED

AUSTRALIAN EPDS FOR BUILDING PRODUCTS

#### Beware of 1-page EPDs, it's not a fact sheet.

CREDIBLE PROGRAMME

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### What to look for

EPDs must be independently verified by a qualified professional.

15 approved verifiers by EPD Australasia

**LCA report:** 66 categories in the check list

**EPD document:** 34 categories in the check list

COMPARABILITY (EN 15804)

COMPREHENSIVE VERIFIED

#### CREDIBLE PROGRAMME

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AUSTRALIAN EPDS FOR BUILDING PRODUCTS

# What to look for

ISO 14025 compliant EPD programmes have programme operators responsible for:

- Maintain publicly available lists and records of EPDs and PCRs
- Ensure EPD requirements are followed
- Ensure the selection of competent independent verifiers
- Help avoid misuse of references to standards and use of logos

#### Make sure there's legitimate programme operator behind the EPD





COMPARABILITY (EN 15804)

COMPREHENSIVE VERIFIED CREDIBLE PROGRAMME



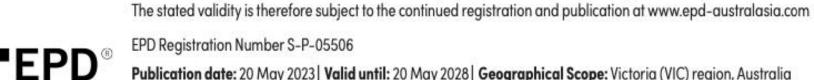


#### In accordance with ISO 14025 and EN 15804:2012+A2:2019

An EPD should provide current information and may be updated if conditions change.

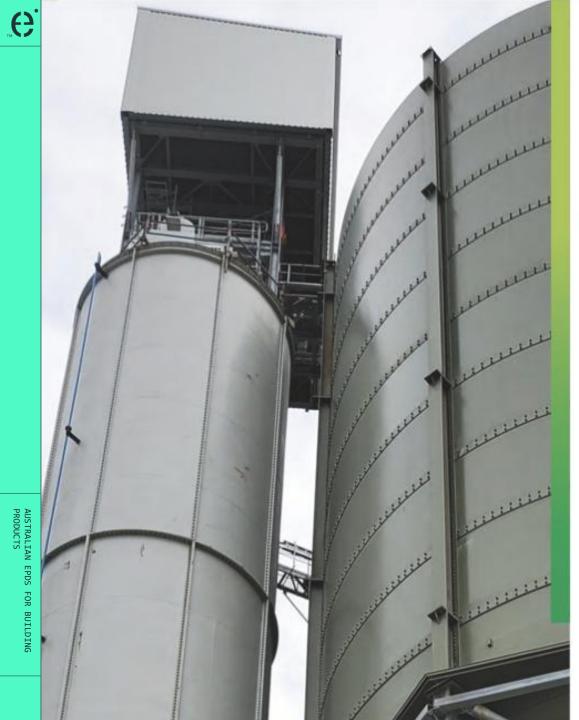


AUSTRALASIA



Publication date: 20 May 2023 | Valid until: 20 May 2028 | Geographical Scope: Victoria (VIC) region, Australia





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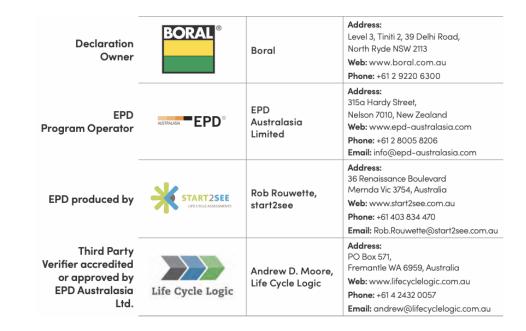


Product composition14	ŧ
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These rules are a key addition to ISO 14025, ISO 14040 and ISO 14044 as they enable transparency and comparability between EPDs. This EPD provides environmental indicators for Boral Cement products manufactured in Victoria (Vic). This EPD is a **'cradle-to-gate'** declaration covering production of cementitious products and their supply chain.

This EPD is verified to be compliant with EN 15804+A2. EPDs of construction products may not be comparable if they do not comply with EN 15804. EPDs within the same product category but from different programs or utilising different PCRs may not be comparable.

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



Boral | VIC region 1



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Overview and implications of recent changes to the Australasian EPD guidelines

### What changes are coming in the future?

**BPD**<sup>®</sup>

ENVIRONMENTAL PRODUCT DECLARATION

# **Rule Changes for EPDs for Construction Products**

22ND MAY 2024

## Changes to rules regarding multiple sets of results for construction products included in the same EPD

Under our partnership agreement with the International EPD® System, it is no longer possible to include several sets of results for multiple products in EPDs for construction products.

This change ensures all EPDs registered with EPD Australasia continue to be uploaded to the International EPD System EPD library, and for the results to also be available via ECO Platform's ECO Portal digital EPD database.

A construction product EPD can cover multiple similar products, but it can only include one set of environmental impact results. The reported results can be based on an average, representative product, or worst-case. If one of these options is used, the EPD must state which on its cover page. Please see the latest Construction Product PCR for details.

For the benefit of EPD users, EPD Australasia strongly encourages the development of EPDs with product-specific results rather than reporting based on average, representative product, or worst-case results for a group of similar products.

Membership of EPD Australasia entitles you to register as many EPDs as you like at no additional cost, so please feel free to request as many EPD registration numbers as you need.

As always please refer to the General Programme Instructions, EPD Australasia's Regional Annex, and the relevant PCR to ensure your EPD complies at the time of publication.

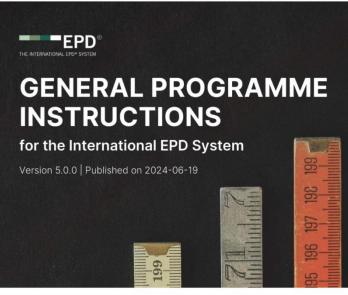
EPD Australasia realises this may impact organisations with EPDs currently under development and apologises for the inconvenience.

#### Major Update to the General Programme Instructions

#### 1ST AUG 2024

A major update to the General Programme Instructions (GPI) 5.0.0 has been released following public consultation and licensee and technical committee review sessions.

Since the previous release of GPI 4.0 in March 2021, significant advancements have been made to refine and improve the rules of the International EPD System. GPI 5.0.0 offers clearer and more stringent procedures for rule changes, document version management, and data quality transparency. The update aims to streamline the process and ensure consistency and credibility of EPDs.



#### **Key Changes**

Key changes in GPI 5.0.0 include:

- Enhanced harmonisation and clarity: Improved guidelines for LCA and EPD content, ensuring data quality and transparency.
- Greater clarity in procedures: Clearer and stricter procedures on rule changes for a coherent approach in version management of documentation.
- Digital transition: Advancements in verification procedures and tools to support the move towards a more digital future.

CONTEXT

## **EPD** Australasia

 Inaugural member of of the International EPD System's global service network



CONTEXT

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- The International EPD System is based in Europe (Sweden) and has a natural focus on the European market.



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- The European sustainability and circular economy market is largely driven by the **European Green Deal**



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- The European sustainability and circular economy market is largely driven by the **European Green Deal**
- The Green Deal includes the **Ecodesign for Sustainable Products Regulation (ESPR)** which enables the setting of performance and information conditions.



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- The European sustainability and circular economy market is largely driven by the **European Green Deal**
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- The ESPR will introduce a **Digital Product Passport**, a digital identity card for products, components, and materials



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- The ESPR will introduce a **Digital Product Passport**, a digital identity card for products, components, and materials
- **EPDs** plays a critical part of the Digital Product Passport.







#### 100+ members, incl:

- EPD programme operators
- Green Building Councils
- Trade Associations
- Data and Tool Providers
- Manufacturers

#### **Mission Statements:**

Advocate of the building & construction LCA Stakeholders
Quality Manager of verified product data
Data provider
Enabler of success

### ECO PORTAL access to our digital data

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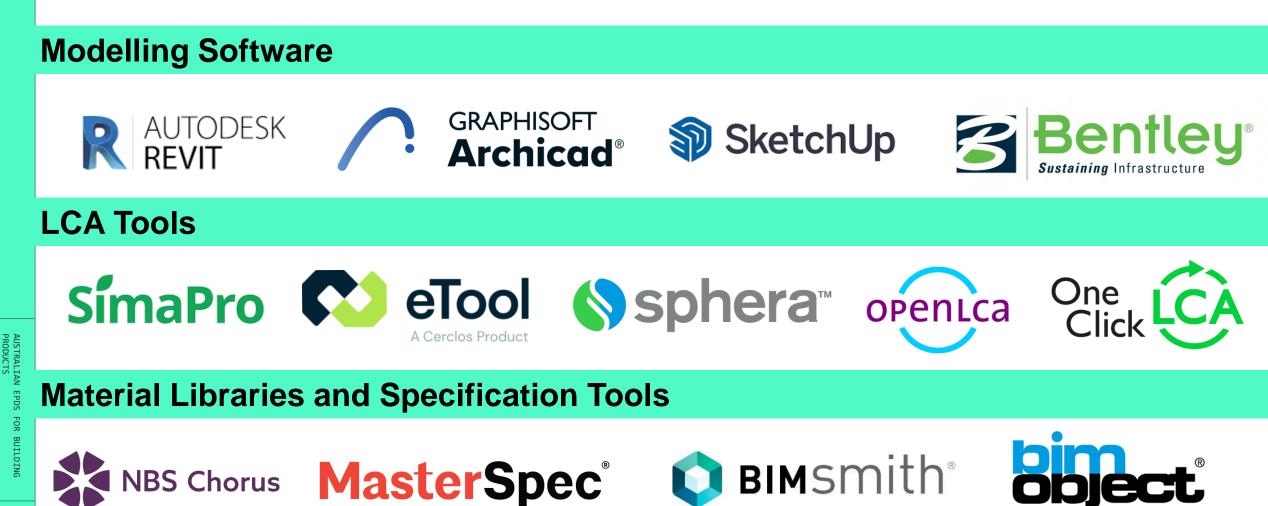
#### 123 out of 14,377 from Australia

List datasets (Total number of entries: 123 of 14377) (Page 1 of 7)											
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0	EPD Product Name 1	Language	Country / Region ↑↓	Valid Until ी≞	EPD Owner ↑↓	Program Operator	Node Î↓	View Download			
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•	EPD-IES-0000718:002 (S-P-00718) PVC Pressure Pipes	<u>en</u> 🔛	AU	2027	Vinidex Pty Limited	The International EPD System	ENVIRONDEC				
•	EL 301 Series Sliding Door Operator	<u>de</u> == <u>en</u> 🔛	AU	2027	dormakaba International Holding AG	Institut Bauen und Umwelt e.V.	IBU_DATA				
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•	EPD-IES-0010239:001 (S-P-10239) Hutchinson Builders 31 Duncan St, Brisbane (7 of 20 mixes)	<u>en</u> 🔛	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC	0 6 k =			
•	EPD-IES-0010232:001 (S-P-10232) Anglo Italian Concrete – State Basketball Center Wantirna, Melbourne (7 of 8 mixes)	en 🔛	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC				
•	EPD-IES-0010215:001 (S-P-10215) Hutchinson Builders 31 Duncan St, Brisbane (13 of 20 mixes)	<u>en</u> 🔛	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC	0 8 <b>k</b> =			
•	EPD-IES-0010226:001 (S-P-10226) Anglo Italian Concrete – State Basketball Center Wantirna, Melbourne (1 of 8 mixes)	en 🔛	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC	0 6 <b>1</b> E			
•	<u>EPD-IES-0010202:001 (S-P-10202) HySustain – Low</u> <u>Carbon/High Performance Concrete</u>	<u>en</u> 🔛	AU	2028	Hymix	The International EPD System	ENVIRONDEC				
•	EPD-IES-0010211:001 (S-P-10211) Hutchinson Builders 31 Duncan St, Brisbane (17 of 20 mixes)	<u>en</u> 🌇	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC				
•	<u>EPD-IES-0010204:001 (S-P-10204) Ecotera – Low</u> <u>Carbon/High Performance Concrete - Victoria - MEL</u> <u>METRO</u>	<u>en</u> 🔛	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC	0 0    =================================			
•	EPD-IES-0010214:001 (S-P-10214) Hutchinson Builders 31 Duncan St, Brisbane (14 of 20 mixes)	<u>en</u> 🌇	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC				
•	EPD-IES-0010238:001 (S-P-10238) Hutchinson Builders 31 Duncan St, Brisbane (8 of 20 mixes)	<u>en</u> 🔛	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC				
•	EPD-IES-0010242:001 (S-P-10242) Hutchinson Builders 31 Duncan St, Brisbane (4 of 20 mixes)	<u>en</u> 🌃	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC				
•	<u>EPD-IES-0010213:001 (S-P-10213) Hutchinson</u> Builders 31 Duncan St, Brisbane ( <u>15 of 20 mixes)</u>	<u>en</u> 🌃	AU	2028	Hanson Construction Materials Pty Ltd	The International EPD System	ENVIRONDEC	0 6 F: E			
•	EPD-IES-0005522:001 (S-P-05522) Adbri Concrete Products EPD— Northern Territory	<u>en</u> 🌃	AU	2028	ADBRI	The International EPD System	ENVIRONDEC	0 6 k =			
•	EPD-IES-0010224:001 (S-P-10224) Xypex Coatings	<u>en</u> 🔛	AU	2028	Xypex Australia	The International EPD System	ENVIRONDEC				
•	EPD-IES-0010216:001 (S-P-10216) Hutchinson Builders 31 Duncan St. Brichano (12 of 20 mixes)	<u>en</u> 🔣	AU	2028	Hanson Construction Materials	The International EPD	ENVIRONDEC				

# AUSTRALIAN EPDS FOR BUILDING PRODUCTS



### **API Integration Opportunities**



### The differences between EPD schemes from different countries and how that may impact EPD usage.

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### Same Product, Different Score

- Lack of harmonisation has been an issue within the EPD system since the 2000s
- Mutual recognition common between EPD Programme Operators, but often multiple operators within countries and regions
- Lots of sources of discrepancy:
  - Product Category Rules (PCRs) variability
  - LCA modelling choices
  - Use of different background databases
  - Geographical scope and local adaptations
  - · Inclusion of capital goods and personnel activities
  - Default values and assumptions
  - Verification processes
- 10 20% variation between common between programme operators (same product)
- The ECO Platform is an active initiative driving consistency, quality and collaboration
- Digitalization of EPD data and the introduction of the European Digital Product Passport are expected to significantly contribute to more consistency and comparability

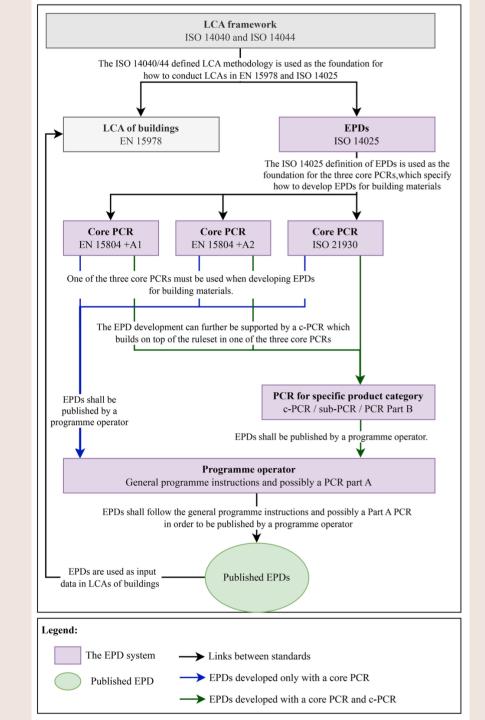
### 40 EPD Programme Operators Globally

Many countries with 2 – 3 operators (incl. Australia, Japan, South Korea, UK, USA, Germany, France)

Read more: konradsen, F., Hansen, K.S.H., Ghose, A. Et al. Same product, different score: how methodological differences affect EPD results. Int J life cycle assess 29, 291-307 (2024). Https://doi.org/10.1007/s11367-023-02246-x

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- The Gold Standard: EPDs are seen as the gold standard for environmental information and are independently verified to meet international standards (ISO 14025 and EN15804) which is why they are recognised by Greenstar.
- More EPDs = Improved Decision-making: Increasing numbers of EPDs for similar products mean that decision making can be improved.
- **Disruptive Digitalisation:** Recent changes to single dataset EPDs are driven by the move to digitalise EPD data.
  - Significant investment is being made to enable EPD data to be more readily available.
  - Access & APIs open up for automation, innovation and improved quality
  - Frequent changes to EPD programme rules internationally have created challenges however we are expecting these to settle now.
- Too many EPD Programmes = Inconsistencies: Important to ensure the credibility of the EPD programme when comparing EPD data, key factors for building products include compliance with EN15804 and acceptance by ECO Platform.



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### Thank You!

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