

Umhverfisyfirlýsing á íslenskri steypu

Kynt af: Smára Valgarðssyni

- Hvað er umhverfisyfirlýsing - EPD
- Innihald - EPD fyrir byggingavörur
- EPD fyrir steypu
- Ferlið hjá BM Vallá
- Hvernig nýtist EPD

Umhverfisyfirlýsing er íslenska þýðingin á „Environmental Product Declaration“ - EPD

EPD er staðlað skjal sem gefur sannreyndar upplýsingar um umhverfisáhrif ákveðinnar vöru yfir vistferil vörunnar í heild sinni eða að hluta

Mat á umhverfisáhrifum er framkvæmt með vistferilsgreiningu – „Life cycle assessment“ eða „LCA“

Niðurstaðan verður greinagóð innihaldslýsing sem ma. gefur upp kolefnisspor vörunnar, hversu orkufrek framleiðslan er og hvort varan innihaldi hættuleg efni.

Segir ekki til um hvort vara sé umhverfisvæn

Innihald EPD fyrir byggingavörur



Visterilsgreiningu er skipt upp í nokkur þrep:

- Framleiðslu
- Framkvæmd
- Notkun
- Förgun

Til eru 3 flokkar af EPD skjölum

Munurinn fellst í fjölda þrepa í vistferilsgreiningunni sem annaðhvort þurfa að vera með eða eru valkvæð

Building life cycle information														Supplementary information beyond the building life cycle
A 1 - 3			A 4 - 5		B 1 - 7					C 1 - 4				D
PRODUCT stage			CONSTRUCTION PROCES stage		USE stage					END OF LIFE stage				Benefits and loads beyond the system boundary
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	Reuse - Recovery - Recycling - Potential -
Raw material Supply	Transport	Manufacturing	Transport	Construction installation proces	Use	Maintenance (incl. transport)	Repair (incl. transport)	Replacement (incl. transport)	Refurbishment (incl. transport)	De-construction / Demolition	Transport	Waste processing	Disposal	
			Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	Scenario	
					B6 Operational energy use									
					Scenario									
					B7 Operational water use									
					Scenario									
Type of EPD	Cradle to gate Declared unit	Mandatory												
	Cradle to gate with option Functional unit	Mandatory	Inclusion optional	Inclusion optional	Inclusion optional	Inclusion optional	Inclusion optional	Inclusion optional	Inclusion optional	Inclusion optional	Inclusion optional	Inclusion optional	Inclusion optional	Inclusion optional
	Cradle to grave Functional unit	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory	RSL if all scenario given Inclusion optional



PRODUCT CATEGORY RULES

EN 15804

NPCR 020 version 2.0

Issue date: 18.10.2018

Valid to: 18.10.2023

PCR – Part B for Concrete and concrete elements



Ver. 1.0

PRODUCT CATEGORY RULES

Issue date: 07.04.2017

Valid to: 07.04.2022

Version No: 1.0

PART A: CONSTRUCTION PRODUCTS AND SERVICES



NPCR Construction products and services – Part A – April 2017

1

Vöruflokkareglur eða PCR:

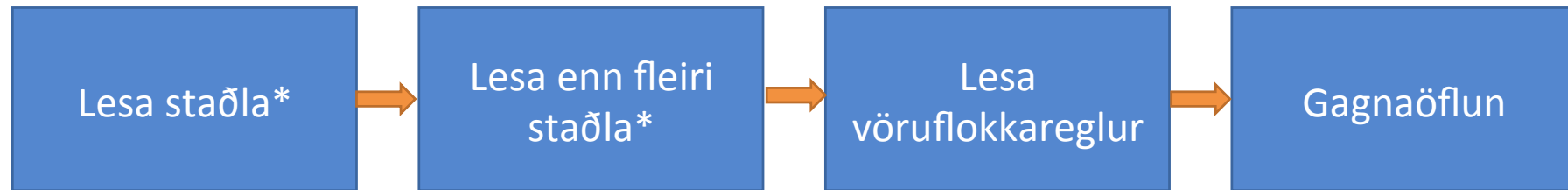
- Staðlar enn frekar hvern vöruflokk fyrir sig
- Auðveldar samanburð innan sama vöruflokks
- Innihalda oft ákvæði umfram þau sem standa í staðli um grundvallarreglur á EPD

5.2 Types of EPD in respect to life cycle stages covered

As in PCR part A and EN 16757, including the following additions:

As a minimum, cradle-to-gate with options that also includes module A4 is required according to this PCR. For concrete elements information modules A5 and C1-C4 are required in addition.

[PART A: CONSTRUCTION PRODUCTS AND SERVICES](#)
[NPCR 020:2018 Part B for Concrete and concrete elements](#)



Gagnaöflun

A1: Öll orkunotkun sem fór í öflun hráefna

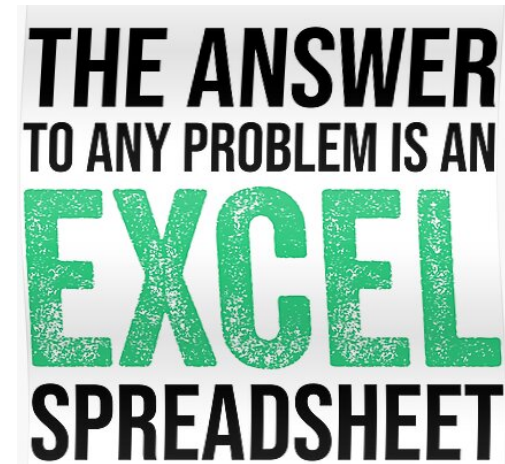
A2: Allur flutningur hráefna á framleiðslustað – einnig erlendis frá

A3: Notkun orku við framleiðslu

A4: Akstur á byggingastað

*ÍST EN 15804:2012+A2:2019
Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products

*ÍST EN 16757:2017
Sustainability of construction works - Environmental product declarations - Product Category Rules for concrete and concrete elements



- Aðild fengin að gagnagrunni sem inniheldur vottaðar vistferilsgreiningar
- Vottun á EPD send beint í gegnum gagnagrunninn til EPD-Norge
- Hægt að gera verkefnatengd EPD á stöðluðu formi



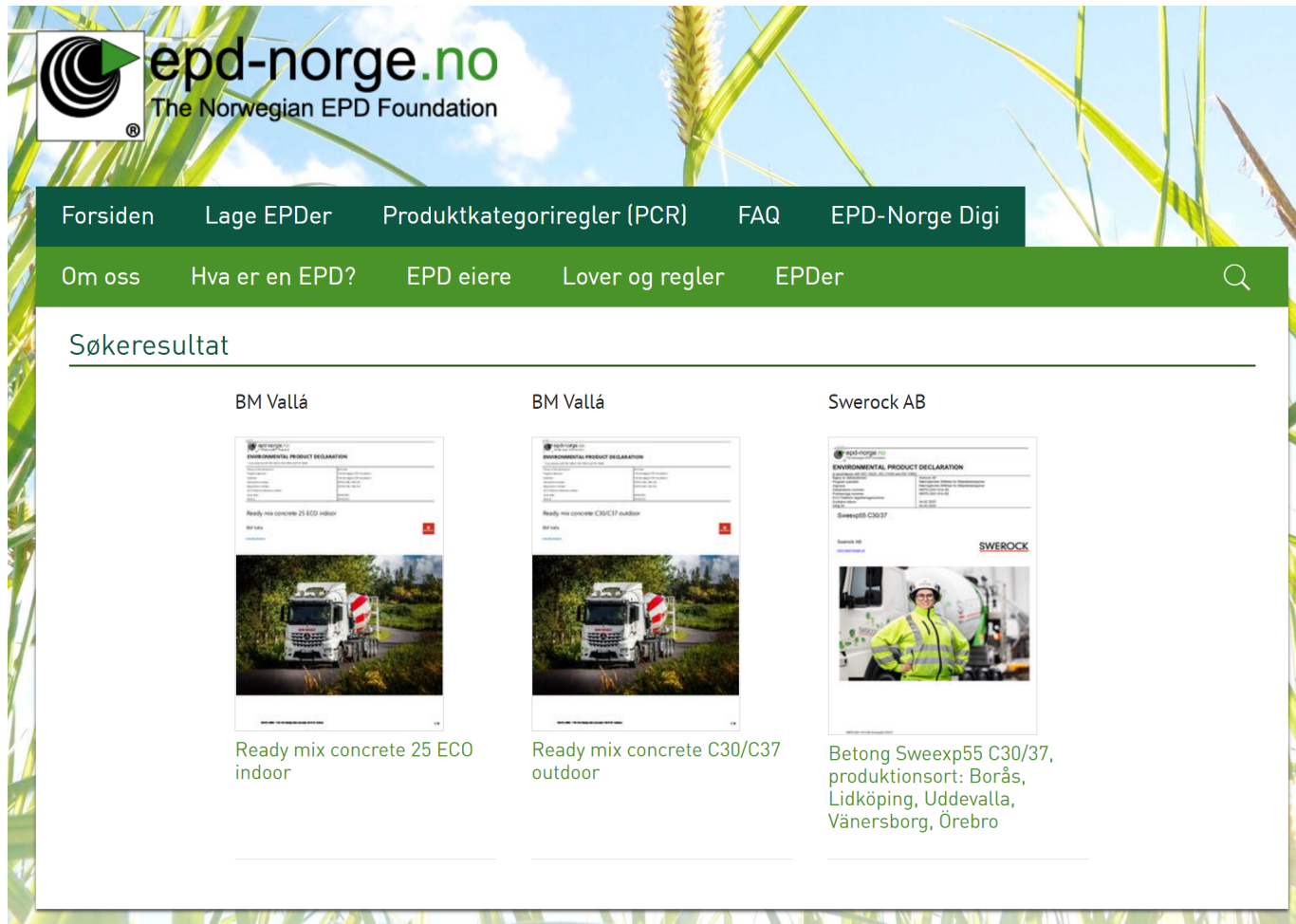
Environmental documentation portal - EPD list Support | Change system | Change company | BM Vallá | Smari Valgardsson | LOGOUT

Unverified EPDs **EPDs for verification** Verified EPDs

ID	Date	Name	EPD Unit	Comments	Editor	Responsible	Manufacturer ID	Production site	PCR
30620	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements
30619	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements
30618	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements
30617	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements
30613	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements
30612	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements
30610	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements
30609	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements
30607	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements
30605	30.11.2020		1 m ³		Smari Valgardsson	Einar Einarsson	BM Vallá	BM Vallá	NPCR 020:2018 Part B for Concrete and concrete elements

[Reset filter](#)

Afraksturinn eru 2 vottuð EPD skjöl á steypu frá BM Vallá sem eru aðgengileg inni á heimasíðu EPD-Norge



<https://www.epd-norge.no/ferdig-betong/ready-mix-concrete-25-eco-indoor-article2774-317.html>

<https://www.epd-norge.no/ferdig-betong/ready-mix-concrete-c30-c37-outdoor-article2773-317.html>

General information

Product:

Ready mix concrete 25 ECO indoor

Owner of the declaration:

BM Vallá
Contact person: Smári Valgárðsson
Phone: +3546175020
e-mail: smariva@bmvalla.is

Program operator:

The Norwegian EPD Foundation
Pb. 5250 Majorstuen, 0303 Oslo
Phone: +47 23 08 80 00
e-mail: post@epd-norge.no

Manufacturer:

BM Vallá

Declaration number:

NEPD-2366-1102-EN

Place of production:

BM Vallá, Reykjavík

ECO Platform reference number:

Management system:

ISO 9001

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A1:2013 serves as core PCR
NPCR 020:2018 Part B for Concrete and concrete elements

Organisation no:

10480

Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

Issue date:

08.09.2020

Valid to:

08.09.2025

Declared unit:

1 m3 Ready mix concrete 25 ECO indoor

Year of study:

2020

Declared unit with option:

A1,A2,A3,A4

Comparability:

EPD of construction products may not be comparable if they not comply with EN 15804 and seen in a building context.

Functional unit:

Author of the Life Cycle Assessment:

The declaration is developed using eEPD v4.0 from LCA.no
Approval:
Company specific data are:

Collected/registered by: Smári Valgárðsson

Internal verification by: Einar Einarsson

Verification:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4

External

Third party verifier:

Sign



Senior Research Scientist, Anne Ranning

(Independent verifier approved by EPD Norway)

Approved:

Sign



Håkon Hauan
Managing Director of EPD-Norway

LCA: Results

System boundaries (X=included, MND=module not declared, MNR=module not relevant)

Product stage				Construction installation stage	User stage							End of life stage				Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse/Recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Environmental impact

Parameter	Unit	A1	A2	A3	A4
GWP	kg CO ₂ -eq	1,71E+02	3,09E+01	2,04E+00	1,18E+00
ODP	kg CFC11-eq	1,53E-06	4,17E-06	3,23E-07	2,24E-07
POCP	kg C ₂ H ₄ -eq	2,01E-02	3,55E-03	3,92E-04	2,10E-04
AP	kg SO ₂ -eq	3,95E-02	8,96E-02	1,38E-02	4,17E-03
EP	kg PO ₄ ³⁻ -eq	8,17E-02	1,32E-02	2,93E-03	8,68E-04
ADPM	kg Sb-eq	2,55E-05	4,29E-05	1,20E-06	2,62E-06
ADPE	MJ	4,72E+02	3,22E+02	2,62E+01	1,81E+01

GWP Global warming potential, ODP Depletion potential of the stratospheric ozone layer, POCP Formation potential of tropospheric photochemical oxidants, AP Acidification potential of land and water, EP Eutrophication potential, ADPM Abiotic depletion potential for non fossil resources, ADPE Abiotic depletion potential for fossil resources

Reading example: 9.0 E-03 = 9,0*10⁻³ = 0,009

*INA Indicator Not Assessed

 <p>The Norwegian EPD Foundation</p>	<p>Program operator and publisher The Norwegian EPD Foundation Post Box 5250 Majorstuen, 0303 Oslo 0303 Oslo Norway</p>
	<p>Owner of the declaration BM Vallá Bíldshæði 7 110 Reykjavík, Iceland</p>
	<p>Author of the Life Cycle Assessment Østfoldforskning AS Stadion 4 1671 Kråkeryr</p>
	<p>Developer of EPD generator LCA.no AS Dokka 1C 1671 Kråkeryr</p>

Fyrir hönnuði og bygginaraðila

- Samanburðarhæfar upplýsingar um umhverfisáhrif og eiginleika vöru
- Verkfæri sem nýtist til að meta kolefnisspor byggingarefna/byggingar á áreiðanlegan hátt
- Mæta kröfum í vottunarkerfum fyrir byggingar, BREEAM o.fl.

Fyrir BM Vallá

- Samanburðarhæf yfirsýn yfir alla steypuflokka
- Til að átta sig á því hvar stærstu umhverfisáhrifin eru í framleiðslu á steypu
- Geta sett sér mælanleg markmið og dregið enn frekar úr skaðlegum umhverfisáhrifum/kolefnisspori
- Mæta kröfum í vottunarkerfum fyrir byggingar, BREEAM o.fl.
- Áreiðanlegar og staðlaðar upplýsingar til viðskiptavina

Takk fyrir