

Result summary

Bevestigingsmiddelen LCA fietsbrug - gemeente Dongen

Gemeente Dongen

Calculation number: EPD-NIBE-20201012-7759

Generation on: 08-06-2021

Issue date:

Valid until:

Status: in-progress

R<THiNK



1 Bevestigingsmiddelen LCA fietsbrug - gemeente Dongen

1.1 COMPANY INFORMATION / DECLARATION OWNER

Manufacturer: Gemeente Dongen

Production Location: Gemeente Dongen

Address: Hoge Ham 62, 5104 JJDongen

E-mail: info@dongen.nl

Website: www.dongen.nl

1.2 EPD INFORMATION

Calculation number: EPD-NIBE-20210607-19980

Date of issue:

End of validity:

Version NIBE's EPD Application: v2.0

Version database: v3.03 (2021-03-26)

PCR: NMD Determination method Environmental performance Construction works v1.0

July 2020 | EN15804+A1

1.3 VERIFICATION OF THE DECLARATION

CEN standard EN 15804:2012 serves as the core PCR.

Independent verification of the declaration. according to EN ISO 14025:2010.

Internal External

1.4 DECLARED UNIT

Bestaande (vaste) houten fietsbrug Gemeente Dongen

Deze LCA betreft de referentieberekening de te vervangen fietsbrug. Eenheid is 1 p (piece)

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1.5 SCOPE OF DECLARATION

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	MND	MND	MND	MND	X	X	X	X	X

(X = included, MND = module not declared)

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1.6 PRODUCT DESCRIPTION

Bevestigingsmateriaal uitgaand van standard brug uit document: Eindrapport_lca_studie_bruggen_sep2013 op pagina 28: Aantal kg op de volgende methode berekend: 47 kg op 12,717 ton hout. Dit is geschaald naar het gebruikte volume hout voor de fietsbrug te Sportlaan Dongen: 8,9 kg bevestigingsmateriaal. Aangenomen is dat (worst case) er 5 % gewicht bij komt i.v.m. het verzinken van bevestigingsmiddelen.

Betreft het totaal aan bevestigingsmiddelen.

Deze LCA betreft 1 levenscyclus van 30 jaar: De projectlevensduur is 60 jaar. De gehele brug wordt in tussentijd geheel vervangen; 60 jaar is in dit geval 2 maal A t/m D

1.7 DESCRIPTION OF THE MANUFACTURING PROCESS

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1.8 RESULTS

Environmental effects	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
ADPE	Kg Sb	3.75E-3	5.21E-7	0.00E+0	5.21E-7	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.56E-7	0.00E+0	8.19E-10	-3.03E-3	7.19E-4
ADPF	Kg Sb	2.40E-1	1.37E-3	0.00E+0	1.37E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.10E-4	0.00E+0	9.37E-6	-6.69E-2	1.77E-1
GWP	Kg CO2 Equiv.	3.55E+1	1.83E-1	0.00E+0	1.83E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	5.48E-2	0.00E+0	6.70E-4	-9.48E+0	2.65E+1
ODP	Kg CFC-11 Equiv.	2.68E-6	3.42E-8	0.00E+0	3.42E-8	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.02E-8	0.00E+0	2.32E-10	-4.68E-7	2.29E-6
POCP	Kg Ethene Equiv.	3.70E-2	1.09E-4	0.00E+0	1.09E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	3.25E-5	0.00E+0	7.12E-7	-1.45E-2	2.27E-2
AP	Kg SO2 Equiv.	2.52E-1	7.93E-4	0.00E+0	7.93E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.37E-4	0.00E+0	4.91E-6	-5.13E-2	2.03E-1
EP	Kg PO43- Equiv.	6.15E-2	1.60E-4	0.00E+0	1.60E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.79E-5	0.00E+0	9.58E-7	-7.29E-3	5.46E-2
HTP	kg 1.4 DB	9.65E+1	7.50E-2	0.00E+0	7.50E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.25E-2	0.00E+0	3.73E-4	-6.11E+0	9.05E+1
FAETP	kg 1.4 DB	8.01E-1	2.18E-3	0.00E+0	2.18E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	6.52E-4	0.00E+0	5.96E-5	-6.68E-2	7.39E-1
MAETP	kg 1.4 DB	2.57E+3	7.77E+0	0.00E+0	7.77E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.33E+0	0.00E+0	3.15E-2	-2.38E+2	2.35E+3
TETP	kg 1.4 DB	5.47E-1	2.59E-4	0.00E+0	2.59E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	7.74E-5	0.00E+0	9.28E-7	-7.20E-2	4.76E-1

ADPE=Depletion of abiotic resources-elements | ADPF=Depletion of abiotic resources-fossil fuels | GWP=Global warming | ODP=Ozone layer depletion | POCP=Photochemical oxidants creation | AP=Acidification of soil and water | EP=Eutrophication | HTP=Human toxicity | FAETP=Ecotoxicity. fresh water | MAETP=Ecotoxicity. marine water (MAETP) | TETP=Ecotoxicity. terrestrial

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Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D	Total
PERE	MJ	4.66E+1	3.00E-2	0.00E+0	3.00E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	8.96E-3	0.00E+0	4.34E-4	-3.72E+0	4.29E+1
PERM	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERT	MJ	4.66E+1	3.00E-2	0.00E+0	3.00E-2	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	8.96E-3	0.00E+0	4.34E-4	-3.72E+0	4.29E+1
PENRE	MJ	4.81E+2	3.04E+0	0.00E+0	3.04E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	9.10E-1	0.00E+0	2.15E-2	-1.06E+2	3.82E+2
PENRM	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PENRT	MJ	4.81E+2	3.04E+0	0.00E+0	3.04E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	9.10E-1	0.00E+0	2.15E-2	-1.06E+2	3.82E+2
SM	Kg	4.39E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.39E+0
RSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
NRSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
FW	M3	3.72E-1	5.40E-4	0.00E+0	5.40E-4	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.62E-4	0.00E+0	2.20E-5	-3.66E-2	3.37E-1
HWD	Kg	2.98E-3	1.82E-6	0.00E+0	1.82E-6	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	5.44E-7	0.00E+0	1.25E-8	-2.18E-3	8.08E-4
NHWD	Kg	9.45E+0	1.74E-1	0.00E+0	1.74E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	5.21E-2	0.00E+0	1.11E-1	-5.01E-1	9.46E+0
RWD	Kg	1.70E-3	1.92E-5	0.00E+0	1.92E-5	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	5.76E-6	0.00E+0	1.36E-7	-1.35E-4	1.61E-3
CRU	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.07E+0	0.00E+0	0.00E+0	1.07E+0
MFR	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	8.17E+0	0.00E+0	0.00E+0	8.17E+0
MER	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EE	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EET	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EEE	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
SP	s€	s€ 12,45	s€ 0,02	s€ 0,00	s€ 0,02	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,00	s€ 0,01	s€ 0,00	s€ 0,00	s€ -1,37	s€ 11,14

PERE=renewable primary energy ex. raw materials | PERM=renewable primary energy used as raw materials | PERT=renewable primary energy total | PENRE=non-renewable primary energy ex. raw materials | PENRM=non-renewable primary energy used as raw materials | PENRT=non-renewable primary energy total | SM=use of secondary material | RSF=use of renewable secondary fuels | NRSF=use of non-renewable secondary fuels | FW=use of net fresh water | HWD=hazardous waste disposed | NHWD=non hazardous waste disposed | RWD=radioactive waste disposed | CRU=Components for re-use | MFR=Materials for recycling | MER=Materials for energy recovery | EE=Exported energy | EET=Exported Energy Thermic | EEE=Exported Energy Electric

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1.9 ADDITIONAL INFORMATION

Allocation

There is no allocation applied for the environmental profiles / datasets used in this LCA.

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