

# Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040

Ecochain v4.3.1



chemical solutions to concrete problems



Product: Duro-Nox LS  
 Unit: 1kg  
 Manufacturer: Nox-Crete

LCA standard: ISO 14040 & 14044  
 Standard database: Worldwide - Ecoinvent v 3.9.1 Cut-0 No  
 Externally verified: 08-08-2025  
 Export date:

The LCA background information and project dossier have been registered in the online Ecochain application in the account Nox-Crete (2023). (☑ = module declared, MND = module not declared).

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

## Product stage

A1 Raw material supply A2 Transport A3 Manufacturing

## Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment  
 B6 Operational energy use B7 Operational water use

## End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing  
 C4 Disposal

## Construction process stage

A4 Transport gate to site  
 A5 Assembly / Construction installation process

## Benefits and loads beyond the system boundaries

D Reuse- Recovery- Recycling- potential

## Environmental impacts and parameters

GWP-total = EF 31 EN15804+A2 Climate Change\_corrected [kg CO2 eq]; GWP-f = EF 31 Climate change - Fossil [kg CO2 eq]; GWP-b = EF 31 EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; GWP-luluc = EF 31 EN15804+A2 Climate Change - Land use and LU change [kg CO2 eq]; GWP-GHG = IPCC Climate change (total) [kg CO2-eq]; ODP = EF 31 Ozone depletion [kg CFC11 eq]; AP = EF 31 Acidification [mol H+ eq]; EP-fw = EF 31 Eutrophication, freshwater [kg P eq]; EP-m = EF 31 Eutrophication, marine [kg N eq]; EP-T = EF 31 Eutrophication, terrestrial [mol N eq]; POCP = EF 31 Photochemical ozone formation [kg NMVOC eq]; ADP-mm = EF 31 Resource use, minerals and metals [kg Sb eq]; ADP-f = EF 31 Resource use, fossils [MJ]; WDP = EF 31 Water use [m3 depriv.]; PM = EF 31 Particulate matter [disease inc.]; IR = EF 31 Ionising radiation [kBq U-235 eq]; ETP-fw = EF 31 Ecotoxicity, freshwater [CTUe]; HTP-c = EF 31 Human toxicity, cancer [CTUh]; HTP-nc = EF 31 Human toxicity, non-cancer [CTUh]; SQP = EF 31 Land use [Pt]; PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ]; PERM = Use of renewable primary energy resources used as raw materials [MJ]; PERT = Total use of renewable primary energy resources [MJ]; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; PENRM = Use of non-renewable primary energy resources used as raw materials [MJ]; PENRT = Total use of non-renewable primary energy resources [MJ]; PET = Total energy [MJ]; SM = Use of secondary material [kg]; RSF = Use of renewable secondary fuels [MJ]; NRSF = Use of non-renewable secondary fuels [MJ]; FW = Use of net fresh water [m3]; HWD = Hazardous waste disposed [kg]; NHWD = Non-hazardous waste disposed [kg]; RWD = Radioactive waste disposed [kg]; CRU = Components for re-use [kg]; MFR = Materials for recycling [kg]; MER = Materials for energy recovery [kg]; EET = Exported energy thermic [MJ]; EEE = Exported energy electric [MJ]

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# Results

Environmental impact	Unit	A1	A2	A3	A1-A3	A4	Total
GWP-total	kg CO2 eq	4.423E+0	1.991E-2	6.018E-2	4.503E+0	0.270	4.773
GWP-f	kg CO2 eq	4.474E+0	1.989E-2	5.983E-2	4.554E+0	2.150E-1	4.769E+0
GWP-b	kg CO2 eq	-5.528E-2	7.822E-6	1.604E-4	-5.511E-2	0.055	0
GWP-luluc	kg CO2 eq	4.309E-3	1.038E-5	1.950E-4	4.514E-3	1.051E-4	4.619E-3
GWP-GHG	kg CO2-eq	4.476E+0	1.991E-2	6.006E-2	4.556E+0	2.151E-1	4.771E+0
ODP	kg CFC11 eq	2.003E-7	3.079E-10	1.108E-9	2.017E-7	3.383E-9	2.051E-7
AP	mol H+ eq	1.704E-2	9.483E-5	2.766E-4	1.741E-2	1.289E-3	1.870E-2
EP-fw	kg P eq	1.405E-4	1.916E-7	9.540E-7	1.417E-4	2.008E-6	1.437E-4
EP-m	kg N eq	3.203E-3	3.548E-5	1.007E-4	3.339E-3	5.244E-4	3.863E-3
EP-T	mol N eq	3.749E-2	3.837E-4	1.075E-3	3.895E-2	5.687E-3	4.464E-2
POCP	kg NMVOC eq	1.833E-2	1.305E-4	3.689E-4	1.883E-2	1.829E-3	2.066E-2
ADP-mm	kg Sb eq	3.276E-5	6.193E-8	1.790E-7	3.301E-5	5.761E-7	3.358E-5
ADP-f	MJ	7.874E+1	2.842E-1	8.786E-1	7.990E+1	3.150E+0	8.305E+1
WDP	m3 depriv.	2.843E+0	1.345E-3	2.861E-2	2.873E+0	1.601E-2	2.889E+0
PM	disease inc.	2.018E-7	1.913E-9	5.405E-9	2.091E-7	2.675E-8	2.359E-7
IR	kBq U-235 eq	9.008E-2	1.053E-4	1.228E-3	9.141E-2	1.175E-3	9.259E-2
ETP-fw	CTUe	3.099E+1	1.568E-1	6.106E-1	3.176E+1	1.698E+0	3.346E+1
HTP-c	CTUh	1.724E-9	1.045E-11	3.003E-11	1.765E-9	1.301E-10	1.895E-9
HTP-nc	CTUh	4.253E-8	2.219E-10	6.572E-10	4.341E-8	2.705E-9	4.612E-8
SQP	Pt	2.060E+1	2.129E-1	6.242E-1	2.144E+1	3.143E+0	2.458E+1
Resource use	Unit	A1	A2	A3	A1-A3	A4	Total
PERE	MJ	5.122E+0	3.736E-3	2.219E-2	5.148E+0	3.934E-2	5.187E+0
PERM	MJ	0	0	0	0	0	0
PERT	MJ	5.122E+0	3.736E-3	2.219E-2	5.148E+0	3.934E-2	5.187E+0
PENRE	MJ	8.446E+1	3.021E-1	9.353E-1	8.569E+1	3.349E+0	8.904E+1
PENRM	MJ	0	0	0	0	0	0
PENRT	MJ	8.446E+1	3.021E-1	9.353E-1	8.569E+1	3.349E+0	8.904E+1
PET	MJ	7.883E+0	3.059E-1	9.575E-1	9.147E+0	3.388E+0	1.253E+1
SM	kg	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0
FW	m3	6.750E-2	3.683E-5	7.432E-4	6.828E-2	4.339E-4	6.872E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	A4	Total
HWD	kg	1.182E-3	1.811E-6	5.128E-6	1.189E-3	1.982E-5	1.209E-3
NHWD	kg	3.594E-1	1.778E-2	5.120E-2	4.284E-1	2.698E-1	6.981E-1
RWD	kg	5.991E-5	6.066E-8	6.983E-7	6.067E-5	6.804E-7	6.135E-5
CRU	kg	0	0	0	0	0	0
MFR	kg	0	0	1.148E-3	1.148E-3	0	1.148E-3
MER	kg	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0

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