Environmental Product Declaration

according to ISO 14025 and EN 15804

This declaration is for:
Mosa wall tile

Provided by:
Royal Mosa

Mosa.



program operator
Stichting MRPI®
publisher
Stichting MRPI®
www.mrpi.nl

MRPI® registration
1.1.00264.2022
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31-1-2027

COMPANY INFORMATION

Mosa.

Meerssenerweg 358
6201 BA
Maastricht
T 0031 (0)43 368 92 29
Bea Süleová
www.mosa.com

PRODUCT

Mosa wall tile

DECLARED UNIT/FUNCTIONAL UNIT

1 square meter (1 m²) of ceramic wall tile, covering a wall area for a period of 50 years in Europe.

DESCRIPTION OF PRODUCT

This EPD represents an average Mosa wall tile. A weighted average was based on production volumes of sizes: 15x15, 15x30 and 30x60 cm. The glazing systems (GM, PD and SD) were accounted for.

VISUAL PRODUCT



MRPI® REGISTRATION

1.1.00264.2022

DATE OF ISSUE

31-1-2022

EXPIRY DATE

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MORE INFORMATION

https://www.mosa.com/en/products/wall-tiles

SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by **dr. U. Hofstra, SGS Intron.**
The LCA study has been done by **Luc Hillege, Ecochain Technologies B.V..**
The certificate is based on an LCA-dossier according to ISO14025 and EN15804+A2. It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPDs of construction products may not be comparable if they do not comply with EN15804+A2. Declaration of SVHC that are listed on the 'Candidate List of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

PROGRAM OPERATOR

Stichting MRPI®
Kingsfordweg 151
1043GR
Amsterdam

ir. J-P den Hollander, Managing director MRPI®

DEMONSTRATION OF VERIFICATION
CEN standard EN15804 serves as the core PCR[a]
Independent verification of the declaration and data, according to EN ISO 14025:2010: internal: external: X
Third party verifier: dr. U. Hofstra
[a] PCR = Product Category Rules

DETAILED PRODUCT DESCRIPTION

The product that is reported in this document is an average Mosa wall tile based on the complete collection. The products that were averaged for the Wall Tile Factory are: small size (15x15 cm), medium size (15x30 cm), large size (30x60 cm). The glazing systems (GM, PD and SD) were accounted for. G = Glossy, M = Matt. PD = Powder Matt, SD = Stone Matt. A weighted average was made based on production volumes. The chosen Reference Services Life (RSL) differs from Mosa's actual technical life span (75 years).

The Mosa wall tiles are classified within the EN 14411:2016. The LCA study is done according to the PCR for ceramic tiles NEN-EN 17160: 2019. In addition the c-PCR is adopted in this LCA to comply to the new EN-15804+A2:2019. Complementary Product Category Rules (C-PCR) TO PCR 2019:14 CERAMIC TILES (EN 17160:2019) PRODUCT GROUP CLASSIFICATION: UN CPC 373.

COMPONENT (> 1%)	[kg / %]
Clay	50
Chalk	10
Sand	10
Kaolin	9
Feldspar	10
Scrap	10
Pigments	1

(*) > 1% of total mass

SCOPE AND TYPE

Mosa's Wall Tile Factory is located in Maastricht, The Netherlands. Royal Mosa is active in 30 countries on 4 continents. The key markets include Europe, Middle East, Asia Pacific and North America. Mosa manufactures its products in accordance with the ISO 9001 and the ISO 14001 environmental management system. The scope of this EPD is the entire life cycle. The following modules have been included. The product stage (A1-A3): extraction of raw materials and energy (A1), transport to the production location (A2) and the production phase (A3). The construction stage (Module A4 - A5), the use stage (Module B), End-of-Life (Module C) and reuse and recycling stage (Module D) are also included. Created with LCA software, Ecochain version 2.8.1 and background database Ecoinvent version 3.5

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport gate to site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
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	X	X	ND	ND	X	X	X	X	X

X = Modules Assessed

ND = Not Declared

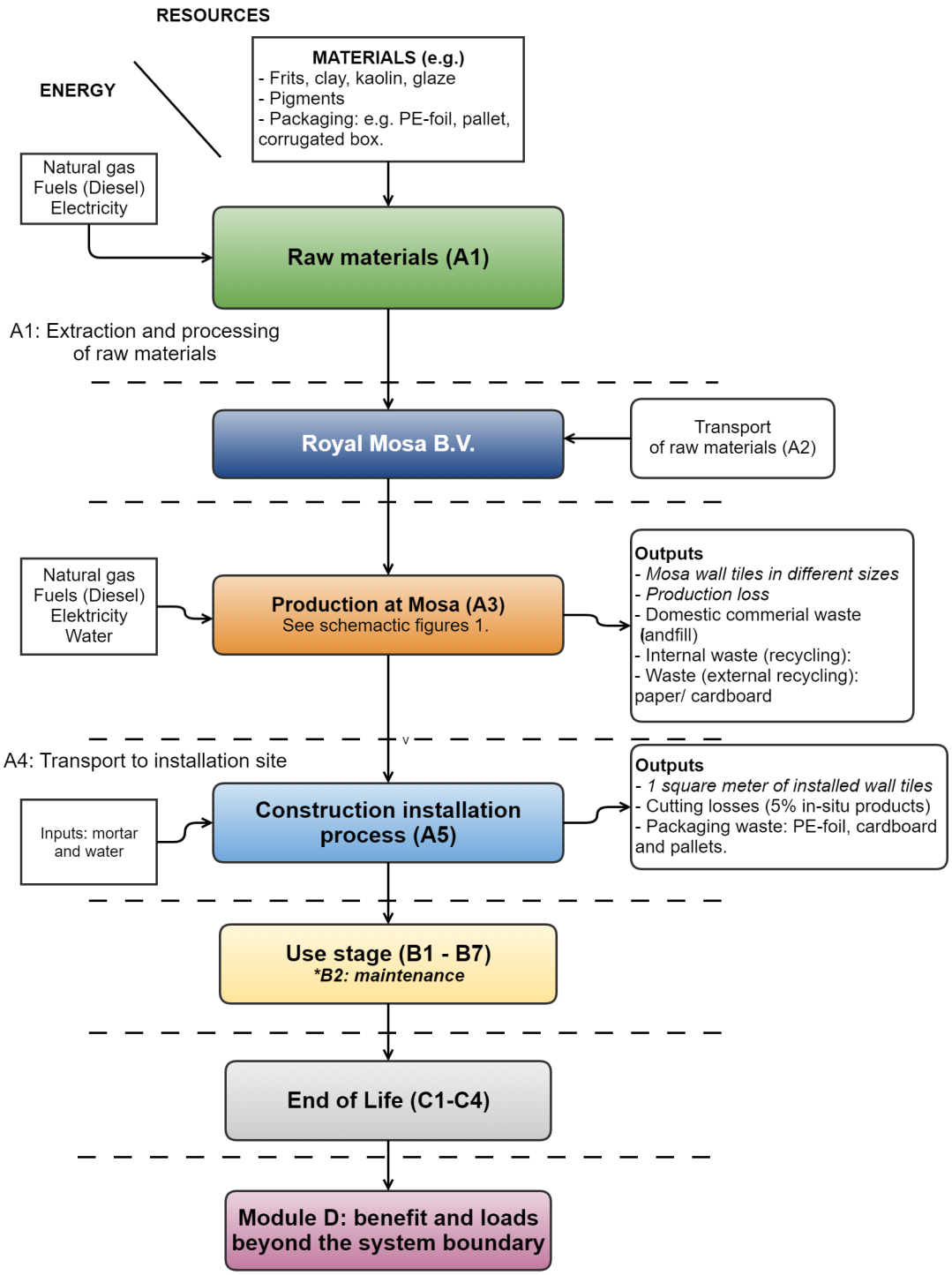


Figure: LCA process diagram according to EN 15804(7.2.1)

REPRESENTATIVENESS

Variability of the results for GWP-total is between -14,7 and -7,7% for the smaller sizes, the medium size has a variability between 6,5 and 11,6%. The larger wall tiles have a variability of 33,5 and 35,8%.

The difference between the weighted average and the individual tiles is the largest for the impact category ecotoxicity, freshwater. The PD, SD - WALL tiles have a higher contribution on this category. Mainly because the glazing system that contains Barium Oxide (BaO).

ENVIRONMENTAL IMPACT per functional unit or declared unit (core indicators A2)

	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	9.11 E-1	4.34 E-1	5.91 E+0	7.26 E+0	1.21 E+0	1.26 E+0	0.00	4.97 E-2	0.00	0.00	0.00	0.00	7.19 E-2	6.55 E-2	1.77 E-2	-1.40 E-1
GWP-fossil	kg CO2 eq.	9.88 E-1	4.34 E-1	5.86 E+0	7.28 E+0	1.21 E+0	1.25 E+0	0.00	4.97 E-2	0.00	0.00	0.00	0.00	7.18 E-2	6.49 E-2	1.76 E-2	-1.39 E-1
GWP-biogenic	kg CO2 eq.	-7.96 E-2	2.91 E-4	5.02 E-2	-2.91 E-2	3.60 E-4	1.66 E-2	0.00	4.33 E-5	0.00	0.00	0.00	0.00	2.08 E-5	4.97 E-4	3.01 E-5	-5.26 E-4
GWP-luluc	kg CO2 eq.	2.46 E-3	1.57 E-4	3.10 E-4	2.93 E-3	3.59 E-4	5.13 E-4	0.00	3.56 E-5	0.00	0.00	0.00	0.00	2.14 E-5	4.02 E-5	4.76 E-6	-1.29 E-4
ODP	kg CFC11 eq.	1.60 E-7	9.64 E-8	8.23 E-7	1.08 E-6	2.78 E-7	1.08 E-7	0.00	5.94 E-9	0.00	0.00	0.00	0.00	1.67 E-8	1.42 E-8	7.85 E-9	-1.82 E-8
AP	mol H+ eq.	6.80 E-3	1.95 E-3	5.91 E-3	1.47 E-2	3.48 E-3	4.12 E-3	0.00	3.28 E-4	0.00	0.00	0.00	0.00	4.11 E-4	5.79 E-4	1.71 E-4	-1.02 E-3
EP-freshwater	kg P eq.	9.04 E-5	8.17 E-6	5.39 E-5	1.53 E-4	1.82 E-5	2.76 E-5	0.00	3.68 E-6	0.00	0.00	0.00	0.00	1.08 E-6	2.46 E-6	3.10 E-7	-7.01 E-6
EP-marine	kg N eq.	1.47 E-3	5.76 E-4	1.54 E-3	3.59 E-3	6.48 E-4	9.89 E-4	0.00	4.76 E-5	0.00	0.00	0.00	0.00	1.44 E-4	1.99 E-4	5.61 E-5	-2.48 E-4
EP-terrestrial	mol N eq.	1.58 E-2	6.49 E-3	1.70 E-2	3.93 E-2	7.40 E-3	1.13 E-2	0.00	5.79 E-4	0.00	0.00	0.00	0.00	1.59 E-3	2.30 E-3	6.21 E-4	-3.07 E-3
POCP	kg NMVOC eq.	3.88 E-3	1.91 E-3	5.63 E-3	1.14 E-2	2.81 E-3	3.06 E-3	0.00	2.20 E-4	0.00	0.00	0.00	0.00	4.53 E-4	6.11 E-4	1.81 E-4	-7.90 E-4
ADP-minerals & metals	kg Sb eq.	5.73 E-5	1.24 E-6	3.49 E-6	6.21 E-5	3.66 E-6	3.79 E-6	0.00	2.65 E-7	0.00	0.00	0.00	0.00	2.03 E-7	7.31 E-8	1.95 E-8	-8.44 E-7
ADP-fossil	MJ, net calorific value	1.42 E+1	6.61 E+0	9.35 E+1	1.14 E+2	1.85 E+1	1.18 E+1	0.00	1.60 E+0	0.00	0.00	0.00	0.00	1.11 E+0	1.18 E+0	5.31 E-1	-1.88 E+0
WDP	m3 world eq. deprived	7.16 E-1	5.77 E-2	1.11 E+0	1.88 E+0	1.41 E-1	3.97 E-1	0.00	8.87 E-1	0.00	0.00	0.00	0.00	8.75 E-3	2.78 E-2	2.37 E-2	-1.27 E-1

GWP-total = Global Warming Potential total
GWP-fossil = Global Warming Potential fossil fuels
GWP-biogenic = Global Warming Potential biogenic
GWP-luluc = Global Warming Potential land use and land use change
ODP = Depletion potential of the stratospheric ozone layer
AP = Acidification Potential, Accumulated Exceedence
EP-freshwater = Eutrophication Potential, fraction of nutrients reaching freshwater end compartment
EP-marine = Eutrophication Potential, fraction of nutrients reaching marine end compartment
EP-terrestrial = Eutrophication Potential, Accumulated Exceedence
POCP = Formation potential of tropospheric ozone photochemical oxidants
ADP-minerals&metals = Abiotic Depletion Potential for non fossil resources [2]
ADP-fossil = Abiotic Depletion for fossil resources potential [2]
WDP = Water (user) deprivation potential, deprivation-weighted water consumption [2]

Disclaimer [2]

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

ENVIRONMENTAL IMPACT per functional unit or declared unit (additional indicators A2)

	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	D
PM	Disease incidence	7.36 E-8	3.06 E-8	3.04 E-8	1.34 E-7	7.71 E-8	4.42 E-8	0.00	3.00 E-9	0.00	0.00	0.00	0.00	6.50 E-9	4.15 E-8	3.20 E-9	-1.13 E-8
IRP	kBq U235 eq.	4.97 E-2	2.90 E-2	4.49 E-2	1.24 E-1	7.88 E-2	2.76 E-2	0.00	1.72 E-3	0.00	0.00	0.00	0.00	4.73 E-3	6.08 E-3	2.20 E-3	-7.83 E-3
ETP-fw	CTUe	1.83 E+2	4.78 E+0	1.07 E+1	1.98 E+2	1.31 E+1	2.50 E+1	0.00	1.03 E+0	0.00	0.00	0.00	0.00	7.99 E-1	7.53 E-1	3.14 E-1	-2.22 E+0
HTP-c	CTUh	7.50 E-10	1.61 E-10	9.42 E-10	1.85 E-9	3.83 E-10	3.47 E-10	0.00	1.71 E-10	0.00	0.00	0.00	0.00	3.03 E-11	2.81 E-11	6.91 E-12	-1.01 E-10
HTP-nc	CTUh	3.59 E-8	5.57 E-9	1.25 E-8	5.40 E-8	1.46 E-8	1.05 E-8	0.00	2.03 E-9	0.00	0.00	0.00	0.00	1.02 E-9	6.74 E-10	2.23 E-10	-2.33 E-9
SQP	---	2.60 E+1	4.44 E+0	2.70 E+0	3.32 E+1	1.26 E+1	6.81 E+0	0.00	1.91 E-1	0.00	0.00	0.00	0.00	9.28 E-1	1.13 E+0	1.01 E+0	-1.43 E+0

PM = Potential incidence of disease due to PM emissions
IRP = Potential Human exposure efficiency relative to U235 [1]
ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]
HTP-c = Potential Comparative Toxic Unit for humans [2]
HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]
SQP = Potential soil quality index [2]

Disclaimer [1]

- This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Disclaimer [2]

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

RESOURCE USE per functional unit or declared unit (A1 / A2)

	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	D
PERE	MJ	5.69 E+0	1.12 E-1	1.47 E+1	2.05 E+1	1.96 E-1	1.74 E+0	0.00	4.88 E-2	0.00	0.00	0.00	0.00	1.17 E-2	5.65 E-2	4.34 E-3	-9.57 E-2
PERM	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERT	MJ	5.69 E+0	1.12 E-1	1.47 E+1	2.05 E+1	1.96 E-1	1.74 E+0	0.00	4.88 E-2	0.00	0.00	0.00	0.00	1.17 E-2	5.65 E-2	4.34 E-3	-9.57 E-2
PENRE	MJ	2.58 E+1	7.02 E+0	1.04 E+2	1.36 E+2	1.96 E+1	1.32 E+1	0.00	1.71 E+0	0.00	0.00	0.00	0.00	1.18 E+0	1.25 E+0	5.64 E-1	-2.00 E+0
PENRM	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PENRT	MJ	2.58 E+1	7.02 E+0	1.04 E+2	1.36 E+2	1.96 E+1	1.32 E+1	0.00	1.71 E+0	0.00	0.00	0.00	0.00	1.18 E+0	1.25 E+0	5.64 E-1	-2.00 E+0
SM	MJ	7.66 E-1	0.00	0.00	7.66 E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RSF	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRSF	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FW	m3	1.18 E-2	1.26 E-3	2.07 E-2	3.38 E-2	3.01 E-3	8.28 E-3	0.00	1.64 E-2	0.00	0.00	0.00	0.00	1.89 E-4	6.36 E-4	5.49 E-4	-2.91 E-3

PERE = Use of renewable energy excluding renewable primary energy resources
PERM = Use of renewable energy resources used as raw materials
PERT = Total use of renewable primary energy resources
PENRE = Use of non-renewable primary energy resources excluding non-renewable energy resources used as raw materials
PENRM = Use of non-renewable primary energy resources used as raw materials
PENRT = Total use of non-renewable primary energy resources
SM = Use of secondary materials
RSF = Use of renewable secondary fuels
NRSF = Use of non renewable secondary fuels
FW = Use of net fresh water

OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit (A1 / A2)

	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	D
HWD	kg	4.09 E-5	4.57 E-6	3.30 E-3	3.35 E-3	1.18 E-5	1.80 E-4	0.00	1.33 E-6	0.00	0.00	0.00	0.00	7.07 E-7	9.38 E-7	3.55 E-7	-5.90 E-6
NHWD	kg	4.26 E-1	2.92 E-1	1.82 E-1	8.99 E-1	8.83 E-1	2.53 E-1	0.00	4.35 E-3	0.00	0.00	0.00	0.00	6.77 E-2	1.34 E+0	3.27 E+0	-5.28 E-2
RWD	kg	8.19 E-5	4.45 E-5	6.39 E-5	1.90 E-4	1.25 E-4	3.65 E-5	0.00	1.70 E-6	0.00	0.00	0.00	0.00	7.49 E-6	7.89 E-6	3.51 E-6	-9.46 E-6
CRU	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MFR	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.63 E+0	0.00	7.63 E+0
MER	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EEE	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETE	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

HWD = Hazardous Waste Disposed
NHWD = Non Hazardous Waste Disposed
RWD = Radioactive Waste Disposed
CRU = Components for reuse
MFR = Materials for recycling
MER = Materials for energy recovery
EEE = Exported Electrical Energy
ETE = Exported Thermal Energy

BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 / A2)

	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	C1	C2	C3	C4	D
BCCpr	kg C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BCCpa	kg C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

BCCpr = Biogenic carbon content in product
BCCpa = Biogenic carbon content in packaging

CALCULATION RULES

Based on PCR for ceramic tiles NEN-EN 17160: 2019. In addition the c-PCR is adopted in this LCA to comply to the new EN-15804+A2:2019. Complementary Product Category Rules (C-PCR) TO PCR 2019:14 CERAMIC TILES (EN 17160:2019) PRODUCT GROUP CLASSIFICATION: UN CPC 373.

Data sources:
The data used for the products, by-products and waste in this research originates from the energy and raw materials administrations at both the raw material extraction site and the Mosa production site in Maastricht. Production data from 2019 was used in each life cycle phase.

Data collection procedure:
For all energies, activities and materials used in the Mosa wall tiles, representative LCA references and records were selected from Ecoinvent (v3.5) and the Dutch National Environmental Database (In short NMD version 3.1).

Allocation and cut-off criteria:
All relevant inputs and outputs - like emissions, energy and materials - have been taken into account in this LCA. And in accordance with EN15804, the total neglected input flows per module do not exceed 1% of energy usage and mass.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

Raw materials (A1):
For all energies, activities and materials used in the Mosa wall tiles, representative LCA references and records were selected. The glazing is specifically modelled based on composition measurements using imaging techniques (spectocropy). Specific LCA modeling has been done for (lead free) frits and pigments.

Transport (A2):
All relevant transports to Royal Mosa B.V. in Maastricht are included in this study. Means of transport were modelled based on supplier information from the transporter to the production location. As the EN-17160 indicates, return transports must be included. This is achieved when calculating with the single journey and average load factor. The load factor has already been incorporated into the Ecoinvent transport reference and are therefore taken into account.

Manufacturing (A3):
All relevant inputs to produce Mosa wall tiles are included in this study, such as: raw materials, energy, auxiliary materials and waste processing up to the end-of-waste stage or disposal of final residues during the product stage. Mosa's production process is divided into a number of production steps. The manufacturing processes related to A3 are described in more detail in the table below.

Process 01 Mass preparation:
After weighing the raw materials, the hard components are milled in tumbling mills while supplying spring water, after this, this mass is fed to the covered tubs together with the soft components and then everything is mixed with a number of additives to a ceramic suspension. This suspension is stored in a pit. The suspension is sieved and spray-dried in the spraying tower until it becomes a press granulate, which is stored in bunkers.

Process 02 Pressing:
of tiles Press granulate is transported to the tile presses via conveyor belt, where the granulate is pressed into a 'green' tile under high pressure with hydraulic presses. The pressed tiles are deburred and transported to the biscuit fire section by roller boxes and automatically guided vehicles.

Process 03 Dry-fire:
The tiles are dried with a tunnel drier before they are passed through the biscuit kiln. The firing pro-duces an intermediate product, the 'biscuit' tile.

Process 04 Glaze-decorate-fire:
The 'biscuits' are transported to the glazing department, being glazed and if applicable further.

Process 05 Sorting:
After the production process, the tiles are sorted by means of breaking rolls and camera control. Damaged tiles are reused as raw materials in the production process. The tiles are packed in cardboard boxes, stacked on pallets and provided with a shrink-wrap.

Process 06 Other processes – offices, general heating systems:
All other processes that are not related to production and do not have to be allocated to Mosa's wall tiles.

Construction stage (A4-A5)
In this study, all relevant transports and construction activities have been included in the construction and installation process. This includes the transport from the Wall Tile factory where Mosa wall tiles are produced to the construction site (A4), as well as the installation at work including 5% cutting losses (A5). The removal and processing of the packaging material - which is released at the construction site - has also been included in this phase. It is assumed that all transport is done by 16-32-ton truck with a EURO5 engine or a better performing vehicle. This is the most representative for Mosa's current situation. The transport values are based on actual Mosa sales volumes to different European countries from 2019. Whereby a weighted average approach has been adopted. The resulting average transport distance of 680 km was used in this LCA study.
The following European waste scenario (table 12, p.41 PCR-EN17160) have been used and can be found in Module A5.

Packaging materials	Recycling	Incineration	Landfill	Source
PE foil	37.2	31.5	31.1	Value from EN17160Â
Cardboard	84.6	8.3	7.1	Value from EN17160Â
Pallet	36.1	30	33.9	Value from EN17160Â

B1: Use phase

The materials used cause no or negligible emissions during the use phase. This is included in the PCR, EN17160: 2019, p. 41. Therefore, In Module B1 – a 0 is stated in the results table on page.

B2: Maintenance

Maintenance and replacement of Mosa wall tiles are included in this study. Maintenance in particular is an aspect that is important for wall tiles. During the lifespan of a Wall Tile, it is cleaned (maintained). The EN17160:2019 (p.43) prescribes that in the case of household application, the following cleaning regime or 'maintenance cycle' can be assumed for wall tiles:
0.134 ml of cleaning agent and 0.1 liter of water consumption per 3 months per square meter (1 m^2).

B3-B5: Repair, Replacement and Refurbishment

The service life of ceramic tiles is in general the same as the building life time. Repair, replacement and refurbishment is not required for ceramic tiles. This is included in the PCR, EN17160: 2019, p. 41. Therefore, in Module B3, B4 and B5 a zero is stated in the results table.

B6-B7: Operational energy and water use

These information modules relate to the operation of the building and are therefore not relevant for ceramic tiles.

End of Life stage

C1: Demolition

Negligibly small and ignored according to PCR, EN-17190. A 0 has therefore been included in the results tables of this LCA study.

C2: Transport

The transport of a demolished Mosa wall tile is included in this phase. A fixed value of 50 km to a waste processor has been used for this.

C3-C4: Waste processing

For the EOL (End-of-Life) of a Mosa Wall Tile, the following EOL scenario has been used in accordance with EN17160, table 17. According to this scenario 70% is
recycled and 30% will go to landfill. The Netherlands uses higher recycling rates for ceramic tiles (99%). Due to a lack of data on recycling and re-use scenarios for each
European country a 'worst-case' approach is adopted. Therefore, using the default values provided by the PCR for ceramic tiles.

DECLARATION OF SVHC

Mosa wall tiles do not contain any SVHCs

REFERENCES

This EPD is based on PCR for ceramic tiles NEN-EN 17160: 2019. The original LCA background report was made according to the Dutch Assessment Method for Environmental Performance Buildings & Civil Engineering Works version 3.0

REMARKS

None