ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804

Owner of the Declaration	**ASSA ABLOY Australia Pty Ltd**
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-ASA-20160082-IBA1-EN
Issue date	27.04.2016
Valid to	26.04.2021

Single-point locks – Lockwood 3772SS Commercial Mortice Lock

ASSA ABLOY Australia Pty Ltd

Institut Bauen und Umwelt e.V.

www.bau-umwelt.com / https://epd-online.com

1. General Information

ASSA ABLOY Australia Pty Ltd

Programme holder
IBU - Institut Bauen und Umwelt e.V.
Panoramastr. 1
10178 Berlin
Germany

Declaration number
EPD-ASA-20160082-IBA1-EN

This Declaration is based on the Product Category Rules:
IBU: PCR Locks and fittings: (mechanical & electromechanical locks & fittings)
(PCR tested and approved by the independent expert committee (SVR))

Issue date
27.04.2016

Valid to
26.04.2021

Prof. Dr.-Ing. Horst J. Bossenmayer
(President of Institut Bauen und Umwelt e.V.)

Dr.-Ing. Burkhart Lehmann
(Managing Director IBU)

3772SS Commercial Mortice Lock

Owner of the Declaration
ASSA ABLOY Australia Pty Ltd
235 Huntingdale Rd
Oakleigh VIC 3166
Australia

Declared product / Declared unit
The declaration represents 1 single point lock, with deadlatching latch bolt, 60 mm backset

Scope:
This declaration and its LCA study are relevant to Lockwood 3772SS single point locks.

The primary manufacturing processes are made by external suppliers and the final manufacturing processes and assembly for all lock components occur at the manufacturing factory in Melbourne, Australia. The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

Verification

The CEN Standard EN 15804 serves as the core PCR
Independent verification of the declaration and data according to ISO 14025
☐ internally ☒ externally

Dr.-Ing. Wolfram Trinius
(Independent verifier appointed by SVR)

2. Product

2.1 Product description
Product name: Lockwood 3772SS Mortice Lock
Product characteristic: single point locks

- 60mm backset
- With latch bolt and auxiliary bolt to activate deadlatching when door is in the closed position
- Stainless steel bolt
- Multifunction lock able to be configured to establish escape side and lockable sides.
- Configurable to antilockout function whereby the lock automatically unlocks when the escape handle is operated or latch bolt is depressed.
- Configurable hold back function whereby the latch bolt can be retained in the lockcase to allow the door to behave in a push/pull configuration.
- Reversible latch bolt for alternate door hanging.
- Approved for use in fire door assemblies.

2.2 Application
Lockwood 3772SS single point locks are used as a lock case for commercial applications such as schools, hospitals, office fit outs, etc.

2.3 Technical Data
For the declared product, the following technical data in the delivery status must be provided with reference to the test standard.

Technical data

Parameter	Value	Unit
Cover plate dimensions (H*W*D)	175x25x4	mm
Lock dimensions are (H*W*D)	117x19x88	mm
Backset	60	mm

Placing on the market / Application rules
The standards that can be applied for Lockwood 3772SS mortice lock are:

- AS4145.2-2008
- AS1905.1-2015.

2.4 Delivery status
Single point locks are delivered as separate lock case in a box size - 185 mm x 112 mm x 38 mm.

2.5 Base materials / Ancillary materials

The average composition for Lockwood 3772SS, as following:

Component	Percentage in mass (%)
Steel	28.38
Stainless steel	29.94
Zinc	41.16
Plastics	0.52
Total	100.0

2.6 Manufacture

The primary manufacturing processes are made by Tier 1 suppliers and the final manufacturing processes for mortise locks occur at in factory Melbourne, Australia.

The components come from processes like stamped steel, turning, zinc and steel casting. Final assembly takes place in Australia.

The factory of Melbourne has a quality management system certified according to /ISO 9001:2008/.

2.7 Environment and health during manufacturing

ASSA ABLOY is committed to producing and distributing door opening solutions with minimal environmental impact, where health & safety is the primary focus for all employees and associates.

- Environmental operations, GHG, energy, water, waste, VOC, surface treatment and H&S are being routinely monitored. Inspections, audits, and reviews are conducted periodically to ensure that applicable standards are met and Environment Management program effectiveness is evaluated.
- Code of Conduct covers human rights, labour practices and decent work. Management of ASSA ABLOY is aware of their environmental roles and responsibilities, providing appropriate training, supporting accountability and recognizing outstanding performance.
- The factory of Melbourne has certification of Environmental Management to /ISO 14001:2004/.
- Any waste metals during machining are separated and recycled. The waste from the plating process is delivered to waste treatment plant.

2.8 Product processing/Installation

Lockwood 3772SS single point locks are distributed through and installed by trained installation technicians, such as locksmiths, carpenters etc. adhering to local/national standards and requirements.

2.9 Packaging

Lockwood 3772SS single point locks are packed in cardboard packaging. Packaging includes three paper sheets (installation instruction, drilling template and warranty insert) – all of which are fully recyclable.

Material	Value (%)
Cardboard/paper	100.0
Total	100.0

2.10 Condition of use

Cleaning: Care should be taken during construction/ refurbishment to ensure that paint, thinners, mortar or cement splashes are carefully removed from locks, furniture and hardware. Removal of these splashes with strong cleaning agents or scourers should be avoided.
Dirt and grime should be regularly removed with a soft damp cloth. A solution of mild soap and water may be required. During cleaning, care should be taken to prevent cleaning solution from entering the cylinder keyway. Surfaces should be dried and possibly lubricated.
Lubrication: During assembly of the lock, the areas of contact of the internal mechanism which require lubrication are given an application of high quality grease. As such further lubrication should not be necessary. However, where locks are subjected to heavy traffic, the external contact areas of the bolt and strike may require an occasional smear of light machine oil.

2.11 Environment and health during use

There is no harmful emissive potential. No damage to health or impairment is expected under normal use corresponding to the intended use of the product.

2.12 Reference service life

Approved for 500,000 latching cycles and 80,000 locking cycles under normal working conditions, 25 years depending on cycle frequency.

2.13 Extraordinary effects

Fire

Lockwood 3772SS are approved for use in fire and smoke doors (AS1905.1-2015).

Water

Contains no substances that have any impact on water in case of flood.

Mechanical destruction

No danger to the environment can be anticipated during mechanical destruction.

2.14 Re-use stage

The product is possible to re-use during the reference service life and be moved from one door to another. The majority, by weight, of components is zinc, stainless steel and steel which can be recycled. The plastic components can be used for energy recovery within a waste incineration process.

2.15 Disposal

No disposal is foreseen for the product nor for the corresponding packaging.

2.16 Further information

ASSA ABLOY Australia
235 Huntingdale Road
Oakleigh VIC 3166
Australia

3. LCA: Calculation rules

3.1 Declared Unit

The declaration refers to the functional unit of 1 piece of single point lock Lockwood 3772SS as specified in Part B requirements on the EPD for PCR Locks and fittings: (mechanical & electromechanical locks & fittings)

Declared unit

Name	Value	Unit
Declared unit	1	1 piece of single point lock
Mass (without packaging)	0.91	kg
Conversion factor to 1 kg	1.095	-

3.2 System boundary

Type of the EPD: cradle to gate - with options
The following life cycle stages were considered:

Production stage:

- A1 – Raw material extraction and processing
- A2 – Transport to the manufacturer and
- A3 – Manufacturing

Construction stage:

- A4 – Transport from the gate to the site
- A5 – Packaging waste processing

End-of-life stage:

- C2 – Transport to waste processing
- C3 – Waste processing
- C4 – Disposal (landfill).

This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

- D - Declaration of all benefits or recycling potential from EOL and A5.

3.3 Estimates and assumptions

EoL:
In the End-of-Life stage a scenario with collection rate of 100% for all the recyclable materials was assumed.

3.4 Cut-off criteria

In the assessment, all available data from the production process are considered, i.e. all raw materials used, auxiliary materials (e.g. lubricants), thermal energy consumption and electric power consumption - including material and energy flows contributing less than 1% of mass or energy (if available). In case a specific flow contributing less than 1% in mass or energy is not available, worst-case assumption proxies are selected to represent the respective environmental impacts.
Impacts relating to the production of machines and facilities required during production are out of the scope of this assessment.

3.5 Background data

For life cycle modelling of the considered products, the GaBi 6 Software System for Life Cycle Engineering, developed by PE INTERNATIONAL AG, is used /GaBi 6 2013/. The GaBi-database contains consistent and documented datasets which are documented in the online GaBi-documentation /GaBi 6 2013D/.
To ensure comparability of results in the LCA, the basic data of GaBi database were used for energy, transportation and auxiliary materials.

3.6 Data quality

The requirements for data quality and background data correspond to the specifications of the /IBU PCR PART A/.
PE INTERNATIONAL performed a variety of tests and checks during the entire project to ensure high quality of the completed project. This obviously includes an extensive review of project-specific LCA models as well as the background data used.
The technological background of the collected data reflects the physical reality of the declared products. The datasets are complete and conform to the system boundaries and the criteria for the exclusion of inputs and outputs.
All relevant background datasets are taken from the GaBi 6 software database. The last revision of the used background data has taken place not longer than 10 years ago.

3.7 Period under review

The period under review is 2015 (12-month average).

3.8 Allocation

Regarding incineration, the software model for the waste incineration plant (WIP) is adapted according to the material composition and heating value of the combusted material. In this EPD, the following specific life cycle inventories for the WIP are considered for:

- Waste incineration of plastic from packaging
- Waste incineration of paper from packaging.

Regarding the recycling material of metals, the metal parts in the EoL are declared as end-of-waste status. Thus, these materials are considered in module D. Specific information on allocation within the background data is given in the GaBi dataset documentation.

3.9 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to /EN 15804/ and the building context, respectively the product-specific characteristics of performance, are taken into account.

4. LCA: Scenarios and additional technical information

The following technical information is a basis for the declared modules or can be used for developing specific scenarios in the context of a building assessment if modules are not declared (MND).

Transport to the building site (A4)

Name	Value	Unit
Truck transport		
Litres of fuel diesel with maximum load (27 t payload)	39.40	l/100 km
Transport distance truck	1100	km
Capacity utilization (incl. empty runs) of truck	85	%
Ship transport		
Fuel consumption	10900	kg/100 km
Dead-Weight-Tons	27500	DWT
Transport distance ship	3300	km
Capacity utilization	48	%

Installation into the building (A5)

Name	Value	Unit
Output substances following waste treatment on site (Paper packaging)	0.083	kg

Reference service life

Name	Value	Unit
Reference service life	25	a

End of life (C2-C4)

Name	Value	Unit
Collected separately plastic parts, stainless steel, steel, zinc	0.91	kg
Collected as mixed construction waste for landfilling	0.0	kg
Reuse plastic	0.005	kg
Recycling brass, stainless steel, steel	0.909	kg
Landfilling construction waste	0.0	kg

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Name	Value	Unit
Collected separately waste type (including packaging)	0.997	kg
Recycling Stainless steel	27.44	%
Recycling Zinc	37.72	%
Recycling Steel	26.01	%
Recycling Plastic	0.48	%
Reuse Paper packaging (from A5)	8.35	%

5. LCA: Results

Results shown below were calculated using CML 2000 – Apr. 2013 Methodology.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARYS
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement[1)]	Refurbishment[1)]	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	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: Lockwood 3772SS Commercial Mortice Lock

Parameter	Parameter	Unit	A1-A3	A4	A5	C2	C3	C4	D
GWP	Global warming potential	[kg CO_2-Eq.]	3.91E+00	9.92E-02	1.18E-01	7.11E-03	0.00E+00	1.65E-02	-2.49E+00
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	5.71E-10	4.16E-13	5.39E-13	3.40E-14	0.00E+00	4.96E-14	-4.69E-10
AP	Acidification potential of land and water	[kg SO_2-Eq.]	2.51E-02	1.67E-03	2.69E-05	3.25E-05	0.00E+00	4.20E-06	-1.28E-02
EP	Eutrophication potential	[kg $(PO_4)^{3-}$- Eq.]	1.71E-03	1.99E-04	4.69E-06	7.43E-06	0.00E+00	3.18E-07	-7.95E-04
POCP	Formation potential of tropospheric ozone photochemical oxidants	[kg Ethen Eq.]	1.64E-03	7.63E-06	1.91E-06	-1.05E-05	0.00E+00	2.04E-07	-9.76E-04
ADPE	Abiotic depletion potential for non fossil resources	[kg Sb Eq.]	2.71E-03	3.17E-09	2.13E-09	2.68E-10	0.00E+00	1.09E-09	-2.28E-03
ADPF	Abiotic depletion potential for fossil resources	[MJ]	4.86E+01	1.30E+00	3.30E-02	9.81E-02	0.00E+00	6.97E-03	-2.89E+01

RESULTS OF THE LCA - RESOURCE USE: Lockwood 3772SS Commercial Mortice Lock

Parameter	Parameter	Unit	A1-A3	A4	A5	C2	C3	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	1.12E+01	-	-	-	-	-	-
PERM	Renewable primary energy resources as material utilization	[MJ]	0.00E+00	-	-	-	-	-	-
PERT	Total use of renewable primary energy resources	[MJ]	1.12E+01	2.94E-02	3.08E-03	3.87E-03	0.00E+00	5.11E-04	-6.76E+00
PENRE	Non renewable primary energy as energy carrier	[MJ]	5.78E+01	-	-	-	-	-	-
PENRM	Non renewable primary energy as material utilization	[MJ]	0.00E+00	-	-	-	-	-	-
PENRT	Total use of non renewable primary energy resources	[MJ]	5.78E+01	1.30E+00	3.87E-02	9.84E-02	0.00E+00	7.75E-03	-3.54E+01
SM	Use of secondary material	[kg]	2.55E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of non renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	[m^3]	3.58E-02	2.35E-05	3.43E-04	2.73E-06	0.00E+00	4.03E-05	-2.50E-02

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: Lockwood 3772SS Commercial Mortice Lock

Parameter	Parameter	Unit	A1-A3	A4	A5	C2	C3	C4	D
HWD	Hazardous waste disposed	[kg]	4.27E-03	2.29E-06	2.66E-06	2.24E-07	0.00E+00	5.41E-07	-2.13E-03
NHWD	Non hazardous waste disposed	[kg]	4.55E-01	9.29E-05	2.96E-03	1.24E-05	0.00E+00	1.54E-03	-3.27E-02
RWD	Radioactive waste disposed	[kg]	3.70E-03	1.65E-06	2.26E-06	1.29E-07	0.00E+00	3.09E-07	-2.64E-03
CRU	Components for re-use	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Materials for recycling	[kg]	0.00E+00	0.00E+00	8.32E-02	0.00E+00	9.13E-01	0.00E+00	0.00E+00
MER	Materials for energy recovery	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	Exported electrical energy	[MJ]	0.00E+00	0.00E+00	1.49E-01	0.00E+00	0.00E+00	3.15E-02	0.00E+00
EET	Exported thermal energy	[MJ]	0.00E+00	0.00E+00	4.21E-01	0.00E+00	0.00E+00	8.65E-02	0.00E+00

6. LCA: Interpretation

This chapter contains an interpretation of the Life Cycle Impact Assessment categories. Stated percentages in the whole interpretation are related to the overall life cycle, excluding credits (module D).

The production stage (modules A1-A3) contributes between 89% and 100% to the overall results for all the environmental impact assessment categories hereby considered. Within the production stage, the main contribution for all the impact categories is the production of zinc, stainless steel and steel, mainly due to the energy consumption on this process. Zinc, steel and stainless steel accounts with approx. 99% to the overall mass of the product. The environmental impacts for the transport (A2) have a negligible impact within this stage.

In the end-of-life stage, there are loads and benefits (module D, negative values) considered. The benefits are considered beyond the system boundaries and are declared for the recycling potential of the metals and for the credits from the incineration process (energy substitution).

7. Requisite evidence

Not applicable in this EPD.

8. References

Institut Bauen und Umwelt
Institut Bauen und Umwelt e.V., Berlin (pub.): Generation of Environmental Product Declarations (EPDs).

General principles
for the EPD range of Institut Bauen und Umwelt e.V. (IBU), 2013-04.
www.bau-umwelt.de

PCR Part A
Institut Bauen und Umwelt e.V., Berlin (pub.): Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Background Report. April 2013.
www.bau-umwelt.de

IBU PCR Part B
IBU PCR Part B: PCR Guidance-Texts for Building-Related Products and Services. From the range of Environmental Product Declarations of Institute Construction and Environment e.V. (IBU). Part B: Requirements on the EPD for Locks and fittings.
www.bau-umwelt.com

ISO 14025
DIN EN ISO 14025:2011-10: Environmental labels and declarations — Type III environmental declarations — Principles and procedures.

EN 15804
EN 15804:2012+A1:2013: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

ISO 9001
Quality management systems - Requirements

ISO 14001
Environmental management systems - Requirements with guidance for use (ISO 14001:2004 + Cor. 1:2009).

AS4145.2-2008
Locksets and hardware for doors and windows - Part 2: Mechanical locksets for doors and windows in buildings.

AS1905.1-2015
Components for the protection of openings in fire resistant walls.

9. Annex

Results shown below were calculated using TRACI Methodology.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARYS
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement[1)]	Refurbishment[1)]	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	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: Lockwood 3772SS Commercial Mortice Lock

Parameter	Parameter	Unit	A1-3	A4	A5	C2	C3	C4	D
GWP	Global warming potential	[kg CO_2-Eq.]	3.91E+00	9.92E-02	1.18E-01	7.11E-03	0.00E+00	1.65E-02	-2.49E+00
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	6.07E-10	4.42E-13	5.73E-13	3.62E-14	0.00E+00	5.28E-14	-4.98E-10
AP	Acidification potential of land and water	[kg SO_2-Eq.]	2.44E-02	1.81E-03	3.25E-05	4.25E-05	0.00E+00	4.92E-06	-1.23E-02
EP	Eutrophication potential	[kg N-eq.]	1.09E-03	7.14E-05	1.88E-06	3.00E-06	0.00E+00	1.50E-07	-4.61E-04
Smog	Ground-level smog formation potential	[kg O_3-eq.]	2.85E-01	3.39E-02	7.60E-04	8.75E-04	0.00E+00	3.87E-05	-1.33E-01
Resources	Resources – resources fossil	[MJ]	3.93E+00	1.86E-01	3.87E-03	1.41E-02	0.00E+00	7.18E-04	-1.94E+00

RESULTS OF THE LCA - RESOURCE USE: Lockwood 3772SS Commercial Mortice Lock

Parameter	Parameter	Unit	A1-3	A4	A5	C2	C3	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	1.12E+01	-	-	-	-	-	-
PERM	Renewable primary energy resources as material utilization	[MJ]	0.00E+00	-	-	-	-	-	-
PERT	Total use of renewable primary energy resources	[MJ]	1.12E+01	2.94E-02	3.08E-03	3.87E-03	0.00E+00	5.11E-04	-6.76E+00
PENRE	Non-renewable primary energy as energy carrier	[MJ]	5.78E+01	-	-	-	-	-	-
PENRM	Non-renewable primary energy as material utilization	[MJ]	0.00E+00	-	-	-	-	-	-
PENRT	Total use of non-renewable primary energy resources	[MJ]	5.78E+01	1.30E+00	3.87E-02	9.84E-02	0.00E+00	7.75E-03	-3.54E+01
SM	Use of secondary material	[kg]	2.55E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of non-renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	[m^3]	3.58E-02	2.35E-05	3.43E-04	2.73E-06	0.00E+00	4.03E-05	-2.50E-02

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: Lockwood 3772SS Commercial Mortice Lock

Parameter	Parameter	Unit	A1-3	A4	A5	B6	C2	C3	C4	D
HWD	Hazardous waste disposed	[kg]	4.27E-03	2.29E-06	2.66E-06	2.24E-07	0.00E+00	5.41E-07	-2.13E-03	-7.08E-05
NHWD	Non-hazardous waste disposed	[kg]	4.55E-01	9.29E-05	2.96E-03	1.24E-05	0.00E+00	1.54E-03	-3.27E-02	1.46E-02
RWD	Radioactive waste disposed	[kg]	3.70E-03	1.65E-06	2.26E-06	1.29E-07	0.00E+00	3.09E-07	-2.64E-03	-1.80E-04
CRU	Components for re-use	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-
MFR	Materials for recycling	[kg]	0.00E+00	0.00E+00	8.32E-02	0.00E+00	9.13E-01	0.00E+00	-	-
MER	Materials for energy recovery	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-
EEE	Exported electrical energy	[MJ]	0.00E+00	0.00E+00	1.49E-01	0.00E+00	0.00E+00	3.15E-02	-	-
EET	Exported thermal energy	[MJ]	0.00E+00	0.00E+00	4.21E-01	0.00E+00	0.00E+00	8.65E-02	-	-

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