ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804

Owner of the Declaration	**TESA ASSA ABLOY**
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-ASA-20150158-IBA1-EN
Issue date	10.06.2015
Valid to	09.06.2021

Mechanical panic exit devices – LITE

TESA ASSA ABLOY

Institut Bauen und Umwelt e.V.

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

1. General Information

TESA ASSA ABLOY	LITE
Programme holder IBU - Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany	**Owner of the Declaration** TESA ASSA ABLOY Barrio Ventas Nº35, 20305 Irun, Spain
Declaration number EPD-ASA-20150158-IBA1-EN	**Declared product / Declared unit** The declaration represents 1 piece of mechanical panic exit device LITE, consisting of the following items: -Main mechanism -Auxiliary mechanism -Top and bottom latches -Vertical rods -Striking plates
This Declaration is based on the Product Category Rules: IBU: PCR Locks and fittings , 07.2014 (PCR tested and approved by the independent expert committee (SVR))	**Scope:** This declaration and its LCA study are relevant to LITE panic exit device. The primary manufacturing processes are made by our factory and external supplier. The final manufacturing processes and assembly occur at our manufacturing factory in TESA, SPAIN. 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.
Issue date 10.06.2015	
Valid to 09.06.2021	**Verification** The CEN Standard EN 15804 serves as the core PCR Independent verification of the declaration according to ISO 14025 ☐ internally ☒ externally
Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt e.V.)	
Dr.-Ing. Burkhart Lehmann (Managing Director IBU)	Dr. Wolfram Trinius (Independent verifier appointed by SVA)

2. Product

2.1 Product description

Product name: LITE
Product characteristic:
Mechanical panic exit device: a slight individual or collective push on the activating bar, which is perpendicular to the door, triggers the opening of the Emergency Exit, in any circumstances.

2.2 Application

In compliance with security regulations against fire in public places.
Designed to equip:

- Emergency exit doors
- Frequently used communicating doors
- Types of doors
- Metal or wooden doors
- Metal, aluminium or PVC framed doors with a narrow stile
- Single or double leaf doors (separate or with rebated edge)
- Designed for all types of public, particularly children, the elderly and the disabled.

2.3 Technical Data

The table presents the technical properties of LITE mechanical panic exit device:

Technical data

Parameter	Value	Unit
Bar adjustable on site	As requested by the installer	mm
Short model	860	mm
Long model	1,160	mm
Low projection	97	mm
Main case with a follower	8	mm

- Outside access device (to be supplied separately if requested or needed)
- Designed to equip a 2,350 mm door
- Top and bottom latches.

2.4 Placing on the market / Application rules

For the placing on the market in the EU/EFTA (with the exception of Switzerland) the Regulation (EU) N0 305/2011 from 9 March 2011 applies
The Products need a Declaration of Performance under consideration of /EN 1125:2008 Building hardware — Panic exit devices operated by a horizontal bar, for use on escape routes — Requirements and test methods/ and the CE-marking.

Further standard used for testing FR doors: - /UNE-EN 1634-1/.

For the application and use of the products the respective national provisions apply.

2.5 Delivery status

Mechanical panic exit devices are delivered in box size: 1150 x 108 x 95 mm.

2.6 Base materials / Ancillary materials

The average composition for LITE mechanical panic exit devices is as following:

Component	Percentage in mass (%)
Aluminium	7.70
Steel	60.42
Zinc	31.88
Total	**100.0**

2.7 Manufacture

The stamping and cutting components are made in TESA. The final manufacturing process occurs at in factory TESA, Spain. Rests of components are manufactured bay second suppliers in Spain.
The components come from processes like stamped steel, turning, zinc and sintering steel. Final assembly takes place in Spain.
The factory of TESA has a certification of Quality Management system in accordance with /ISO 9001:1994/, /ISO 14001:1999/.

2.8 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 environmental management program effectiveness is evaluated.
• Code of Conduct covers human rights, labor 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 TESA has certification of Environmental Management to /ISO 9001:1994/ and /ISO 14001:1999/.
• Any waste metals during machining are separated and recycled. The waste from the water-based painting process is delivered to waste treatment plant.

2.9 Product processing/Installation

LITE panic exit devices are distributed through and installed by trained installation technicians, such as locksmiths, carpenters etc. adhering to local/national standards and requirements.

2.10 Packaging

LITE panic exit devices are packed in a cardboard box with corrugated carton inlays. The packaging is fully recyclable.

Material	Value (%)
Cardboard/paper	99.89
Plastic	0.11
Total	**100.0**

2.11 Condition of use

To maintain low friction and secure latching, annual maintenance <1g of grease on contact surfaces of latchbolt is recommended.
No cleaning. Mechanical panic exit devices can be replaced or upgraded without changing control unit or installation cable.

2.12 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.

2.13 Reference service life

Approved for 200,000 cycles under normal working conditions, 6 years depending on cycle frequency.

2.14 Extraordinary effects

Fire
Suitable for use in fire and smoke doors (/EN 1634-1/).

Water
Contain no substances that have any impact on water in case of flood. Electric operation of the device will be influenced negative.

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

2.15 Re-use phase

The product is possible to re-use during the reference service life and be moved to one door to another.
Waste codes according to European Waste Catalogue and Hazardous Waste List - Valid from 1 January 2002.
• /EWC/ 17 04 02 aluminium
• /EWC/ 17 04 05 iron and steel
• /EWC/ 17 04 04 zinc.

2.16 Disposal

All the Components are steel, zinc alloy and aluminium which can be recycled. The locks can be mechanically dissembled to separate the different materials.

2.17 Further information

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3. LCA: Calculation rules

3.1 Declared Unit

The declaration refers to the functional unit of 1 piece of mechanical panic exit device 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	piece of mechanical panic exit device
Mass of product (without packaging)	4.236	kg
Conversion factor to 1 kg	0.236	-

3.2 System boundary

Type of the EPD: cradle to gate - with options
The following life cycle phases 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

The use stage:

- B2 - Maintenance (greasing of the device)

End-of-life stage:

- C2 – Transport to waste processing
- C3 – Waste processing for recycling and
- 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 phase, for all the materials which can be recycled, a recycling scenario with 100% collection rate 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. Production of machines and facilities required during production are out of the scope of this assessment.

3.5 Background data

For life cycle modeling 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 2013/14 (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
- Waste incineration of paper

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)	39.4	l/100 km
Transport distance truck	6000	km
Capacity utilization (incl. empty runs) of truck	85	%
Ship transport		
Volume of heavy fuel oil with maximum load (27500 DWT)	5.3	m³/100 km
Transport distance ship	4000	km
Gross density of products transported	-	
Capacity utilization volume factor	-	

Installation into the building (A5)

Name	Value	Unit
Output substances following waste treatment on site (Paper packaging)	0.45	kg
Output substances following waste treatment on site (Paper packaging)	0.001	kg

Maintenance (B2)

Name	Value	Unit
Other resources – lubricants	0.001	kg/a

Reference service life

Name	Value	Unit
Reference service life	6	a

End of life (C1-C4)

Name	Value	Unit
Collected separately Aluminium, steel, zinc	4.27	kg
Recycling Aluminium, steel, zinc	4.27	kg

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

Name	Value	Unit
Collected separately waste type (including packaging)	4.69	kg
Recycling Aluminium	6.96	%
Recycling Zinc	28.82	%
Recycling Steel	54.63	%
Reuse Paper packaging (from A5)	9.58	%
Reuse Plastic packaging (from A5)	0.01	%

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	X	MND	MND	MND	MND	MND	MND	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One mechanical panic exit device LITE

Parameter	Parameter	Unit	A1 - A3	A4	A5	B2	C2	C4	D
GWP	Global warming potential	[kg CO_2-Eq.]	1.75E+01	1.13E-01	6.36E-01	6.33E-03	1.13E-01	1.25E-03	-1.25E+01
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	3.95E-09	1.92E-12	2.91E-12	3.83E-13	1.92E-12	3.76E-15	3.69E-11
AP	Acidification potential of land and water	[kg SO_2-Eq.]	8.09E-02	5.20E-04	1.45E-04	3.76E-05	5.20E-04	3.18E-07	-5.82E-02
EP	Eutrophication potential	[kg $(PO_4)^{3-}$-Eq.]	5.61E-03	1.17E-04	2.53E-05	1.79E-06	1.17E-04	2.41E-08	-3.48E-03
POCP	Formation potential of tropospheric ozone photochemical oxidants	[kg Ethen Eq.]	6.92E-03	-1.64E-04	1.03E-05	5.20E-06	-1.64E-04	1.55E-08	-4.86E-03
ADPE	Abiotic depletion potential for non fossil resources	[kg Sb Eq.]	8.18E-03	4.50E-09	1.15E-08	7.11E-10	4.50E-09	8.25E-11	-7.73E-03
ADPF	Abiotic depletion potential for fossil resources	[MJ]	2.08E+02	1.57E+00	1.78E-01	3.10E-01	1.57E+00	5.28E-04	-1.34E+02

RESULTS OF THE LCA - RESOURCE USE: One mechanical panic exit device LITE

Parameter	Parameter	Unit	A1 - A3	A4	A5	B2	C2	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	6.07E+01	-	-	-	-	-	-
PERM	Renewable primary energy resources as material utilization	[MJ]	0.00E+00	-	-	-	-	-	-
PERT	Total use of renewable primary energy resources	[MJ]	6.07E+01	6.74E-02	1.66E-02	1.96E-03	6.74E-02	3.87E-05	-3.65E+01
PENRE	Non-renewable primary energy as energy carrier	[MJ]	2.59E+02	-	-	-	-	-	-
PENRM	Non-renewable primary energy as material utilization	[MJ]	0.00E+00	-	-	-	-	-	-
PENRT	Total use of non-renewable primary energy resources	[MJ]	2.59E+02	1.59E+00	2.09E-01	3.13E-01	1.59E+00	5.87E-04	-1.64E+02
SM	Use of secondary material	[kg]	7.24E-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]	1.68E-01	5.92E-05	1.85E-03	-4.78E-06	5.92E-05	3.05E-06	-1.23E-01

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One mechanical panic exit device LITE

Parameter	Parameter	Unit	A1 - A3	A4	A5	B2	C2	C4	D
HWD	Hazardous waste disposed	[kg]	1.94E-02	8.51E-06	1.44E-05	1.42E-06	8.51E-06	4.10E-08	-7.63E-03
NHWD	Non hazardous waste disposed	[kg]	1.01E+00	2.07E-04	1.60E-02	2.09E-05	2.07E-04	1.16E-04	-5.19E-01
RWD	Radioactive waste disposed	[kg]	2.04E-02	7.21E-06	1.22E-05	1.48E-06	7.21E-06	2.34E-08	-1.19E-02
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	3.00E-01	0.00E+00	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	-
EEE	Exported electrical energy	[MJ]	0.00E+00	0.00E+00	8.04E-01	0.00E+00	0.00E+00	2.39E-03	-
EET	Exported thermal energy	[MJ]	0.00E+00	0.00E+00	2.27E+00	0.00E+00	0.00E+00	6.55E-03	-

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 phase (modules A1-A3) contributes between 95% and 100% to the overall results for all the environmental impact assessment categories hereby considered. Within the production phase, the main contribution for all the impact categories is the production of steel mainly due to the energy consumption on this process. Aluminium, steel, and zinc account in total with app. 100% to the overall mass of the product, therefore, the impacts are in line with the mass composition of the product. The environmental impacts for the transport (A2) have a negligible impact within this stage.

In the end-of-life phase, 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

IBU PCR Part A
IBU 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

DIN EN ISO 9001
DIN EN ISO 9001:2008: Quality management systems - Requirements; Trilingual version EN ISO 9001:2008

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

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

ISO 14001:1999
Environmental Management System Certificate

ISO 9001:1994
Quality systems – Model for quality assurance in design, development, production, installation and servicing

EN 1125
EN 1125: Building hardware — Panic exit devices operated by a horizontal bar, for use on escape routes — Requirements and test methods

EN 15804
EN 15804:2012+A1:2014: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

GaBi 6 2013
GaBi 6 2013: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, PE INTERNATIONAL AG, Leinfelden-Echterdingen, 1992-2013.

GaBi 6 2013D
GaBi 6 2013D: Documentation of GaBi 6: Software-System and Database for Life Cycle Engineering. Copyright, TM. Stuttgart, PE INTERNATIONAL AG, Leinfelden-Echterdingen, 1992-2013.
http://documentation.gabi-software.com/

UNE EN1634-1
UNE EN1634-1: Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for doors and shutter assemblies and openable windows

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	X	MND	MND	MND	MND	MND	MND	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One mechanical panic exit device LITE

Parameter	Parameter	Unit	A1 - A3	A4	A5	B2	C2	C4	D
GWP	Global warming potential	[kg CO_2-Eq.]	1.75E+01	1.13E-01	6.36E-01	6.33E-03	1.13E-01	1.25E-03	-1.25E+01
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	4.20E-09	2.04E-12	3.09E-12	4.08E-13	2.04E-12	4.00E-15	4.01E-11
AP	Acidification potential of land and water	[kg SO_2-Eq.]	7.85E-02	6.76E-04	1.76E-04	3.45E-05	6.76E-04	3.73E-07	-5.58E-02
EP	Eutrophication potential	[kg N-eq.]	4.00E-03	4.75E-05	1.01E-05	1.20E-06	4.75E-05	1.14E-08	-2.17E-03
Smog	Ground-level smog formation potential	[kg O_3-eq.]	8.84E-01	1.38E-02	4.10E-03	2.84E-04	1.38E-02	2.93E-06	-5.82E-01
Resources	Resources – resources fossil	[MJ]	1.49E+01	2.24E-01	2.09E-02	4.43E-02	2.24E-01	5.44E-05	-8.42E+00

RESULTS OF THE LCA - RESOURCE USE: One mechanical panic exit device LITE

Parameter	Parameter	Unit	A1 - A3	A4	A5	B2	C2	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	6.07E+01	-	-	-	-	-	-
PERM	Renewable primary energy resources as material utilization	[MJ]	0.00E+00	-	-	-	-	-	-
PERT	Total use of renewable primary energy resources	[MJ]	6.07E+01	6.74E-02	1.66E-02	1.96E-03	6.74E-02	3.87E-05	-3.65E+01
PENRE	Non-renewable primary energy as energy carrier	[MJ]	2.59E+02	-	-	-	-	-	-
PENRM	Non-renewable primary energy as material utilization	[MJ]	0.00E+00	-	-	-	-	-	-
PENRT	Total use of non-renewable primary energy resources	[MJ]	2.59E+02	1.59E+00	2.09E-01	3.13E-01	1.59E+00	5.87E-04	-1.64E+02
SM	Use of secondary material	[kg]	7.24E-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]	1.68E-01	5.92E-05	1.85E-03	-4.78E-06	5.92E-05	3.05E-06	-1.23E-01

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One mechanical panic exit device LITE

Parameter	Parameter	Unit	A1 - A3	A4	A5	B2	C2	C4	D
HWD	Hazardous waste disposed	[kg]	1.94E-02	8.51E-06	1.44E-05	1.42E-06	8.51E-06	4.10E-08	-7.63E-03
NHWD	Non hazardous waste disposed	[kg]	1.01E+00	2.07E-04	1.60E-02	2.09E-05	2.07E-04	1.16E-04	-5.19E-01
RWD	Radioactive waste disposed	[kg]	2.04E-02	7.21E-06	1.22E-05	1.48E-06	7.21E-06	2.34E-08	-1.19E-02
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	3.00E-01	0.00E+00	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	-
EEE	Exported electrical energy	[MJ]	0.00E+00	0.00E+00	8.04E-01	0.00E+00	0.00E+00	2.39E-03	-
EET	Exported thermal energy	[MJ]	0.00E+00	0.00E+00	2.27E+00	0.00E+00	0.00E+00	6.55E-03	-

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