ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804

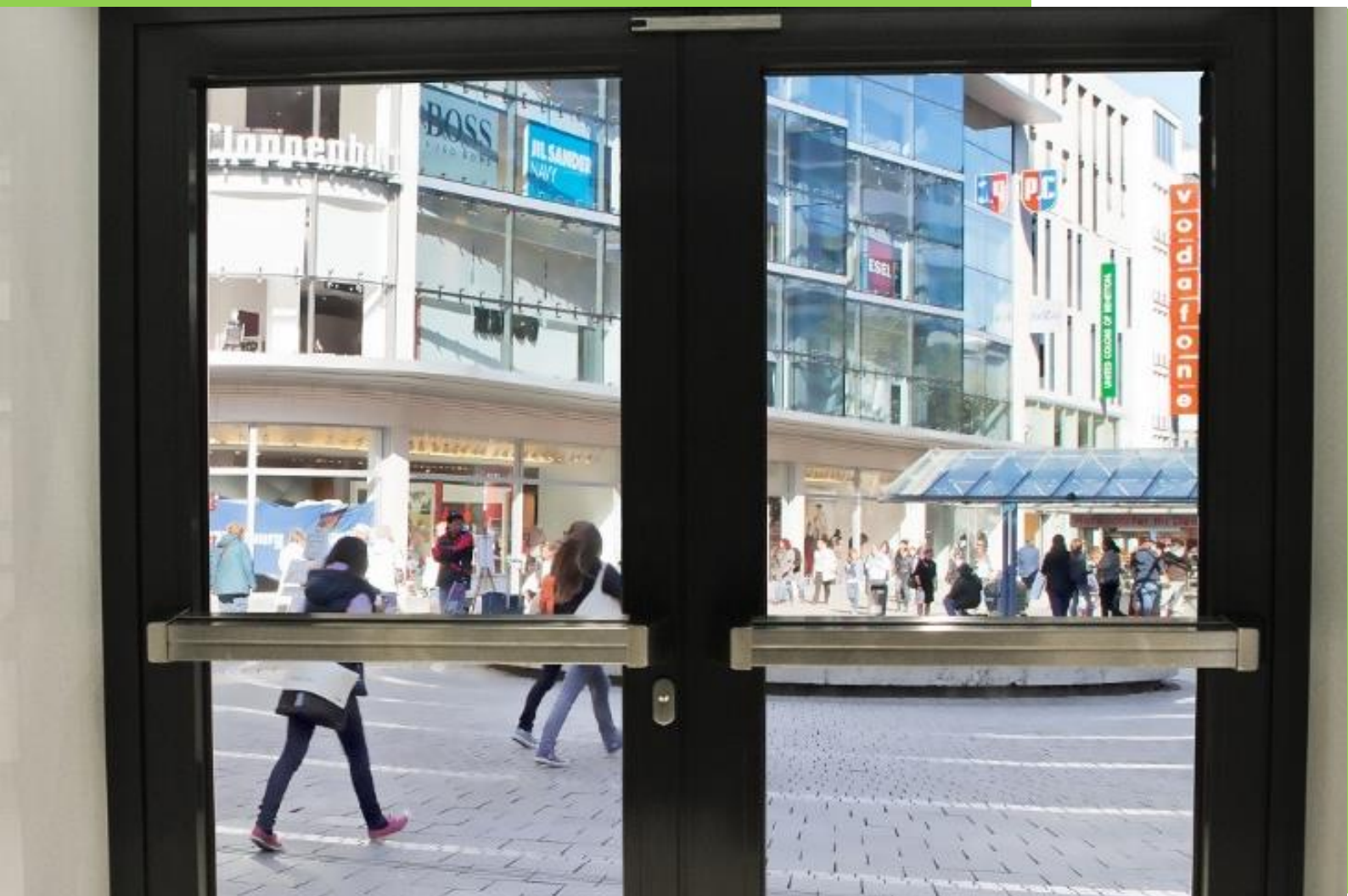
Owner of the Declaration	ASSA ABLOY
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-ASA-20160046-IBA1-EN
Issue date	07.03.2016
Valid to	06.03.2021

Panic exit device – OneSystem Panic Bar Type B

ASSA ABLOY

Institut Bauen und Umwelt e.V.

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



ASSA ABLOY

1. General Information

ASSA ABLOY

Programme holder

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

Declaration number

EPD-ASA-20160046-IBA1-EN

This Declaration is based on the Product Category Rules:

Locks and fittings , 07.2014
(PCR tested and approved by the independent expert committee (SVR))

Issue date

07.03.2016

Valid to

06.03.2021

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

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

OneSystem Panic Bar Type B

Owner of the Declaration

ASSA ABLOY Sicherheitstechnik GmbH
Bildstockstraße 20
72458 Albstadt,
Germany

Declared product / Declared unit

The declaration represents 1 panic exit device – OneSystem Panic Bar Type B consisting of the following items:

Panic Bar Gearbox and tube with a length of 980 mm

Scope:

This declaration and its LCA study are relevant to Panic Bar Type B.

The primary manufacturing processes are made by external suppliers and the final manufacturing processes and assembly occur at our manufacturing facility in Albstadt, Germany. 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 according to ISO 14025

☐ internally ☒ externally

Dr. Wolfram Trinius
(Independent verifier appointed by SVR)

2. Product

2.1 Product description

Product name: Panic Bar Type B

Product characteristic: Panic exit device

- For fire and smoke protection doors and emergency exits, as metal frame or wooden and steel door versions Slim-fit design
- Flat overlap, thus ideal for metal frame doors
- Retrofitting over existing oval rosette drill holes possible
- Compatible with all OneSystem panic locks

2.2 Application

Panic Bar Type B areideal for a wide range of applications.
Designed to equip:

- Emergency exit doors
- Frequently used communicating doors
- Types of doors
- Use for metal, aluminium or PVC framed doors with a narrow stile or wide 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 declared panic exit device has following technical specifications:

Technical data

Item	Value
Maximum release time for the door	1s
Category of the overhang	100mm
Maximum release force – with door not under pressure	80 N
Maximum release force – with door under pressure	200 N with 1000 N press-on force
Maximum door weight	300 kg

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) No 305/2011 applies. The products need a Declaration of Conformity taking into consideration /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.

For the application and use the respective national provisions apply.

2.5 Delivery status

The Panic Bar B is delivered as in a box size - 1880 x 120 x 100mm.

2.6 Base materials / Ancillary materials

The average composition for Panic Bar Type B is as following:

Component	Percentage in mass (%)
Brass	0.11
Plastics	1.25
Stainless Steel	82.48
Steel	2.91
Zinc	13.25
Total	**100.0**

2.7 Manufacture

The primary manufacturing processes are made by external suppliers in factory Zhoungshan, China and Stuttgart, Germany. The components come from processes like stamped steel, turning, injection molding, zinc and steel casting. Final assembly and testing takes place in our manufacturing facility in Albstadt, Germany.

The factory of Albstadt and these of the suppliers have a certified Quality Management system in accordance with /ISO 9001:2008/.

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 Environment 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 Albstadt has certification of Environmental Management to /ISO 14001:2004/ and Occupational Health and Safety to /OHSAS 18001:2007/.

• 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

Panic Bar Type B electronic 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

Panic Bar Type B panic exit devices are packed in a cardboard box with corrugated carton inlays. Panic Bar Type B Tube has package with dimensions of 1880 x 120 x 100mm.

Material	Value (%)
Cardboard/paper	98.0
Plastics	2.0
Total	**100.0**

2.11 Condition of use

To maintain low friction and secure latching, annual maintenance <1g of grease on contact surfaces is recommended.

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 1.000.000 cycles under normal working conditions, 12 years depending on cycle frequency.

2.14 Extraordinary effects

Fire

Suitable for use in fire and smoke doors (/EN 14846/).

Water

Contain 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.

2.15 Re-use stage

The product is possible to re-use during the reference service life and be moved from one door to another.

2.16 Disposal

The majority, of components are stainless steel, steel and brass, which can be recycled. The Panic Bar Type B can be mechanically dissembled to separate the different materials. 99% of the materials used are recyclable. The plastic components can be used for energy recovery in an incineration plant.

2.17 Further information

ASSA ABLOY Sicherheitstechnik GmbH
Bildstockstraße 20
72458 Albstadt , GERMANY
Tel. +49 7431 123-0
www.assaabloy.de

3. LCA: Calculation rules

3.1 Declared Unit

The declaration refers to the functional unit of 1 piece of Panic Bar Type B panic 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	10.87 kg	one piece of mechanical panic exit device
Conversion factor to 1 kg	0.0920	-

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
- 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, 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.

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 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).

Installation into the building (A5)

Name	Value	Unit
Output substances following waste treatment on site (Paper packaging)	4.58	kg

Reference service life

Name	Value	Unit
Reference service life	12	a

End of life (C2 and C4)

Name	Value	Unit
Collected separately Brass, Stainless Steel, Steel, Zinc	10.87	kg
Recycling Brass	0.012	kg
Recycling Stainless Steel	8.96	kg
Recycling Steel	0.32	kg
Recycling Zinc	1.44	kg
Reuse Plastic Parts	0.14	kg

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

Name	Value	Unit
Collected separately waste type (including packaging)	15.45	kg
Recycling Brass	0.08	%
Recycling Stainless Steel	58.00	%
Recycling Steel	2.04	%
Recycling Zinc	9.32	%
Reuse Plastics	0.88	%
Reuse Paper packaging (from A5)	29.68	%

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	MND	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One piece OneSystem Panic Bar Type B

Parameter	Parameter	Unit	A1 - A3	A4	A5	C2	C4	D
GWP	Global warming potential	[kg CO_2-Eq.]	9.37E+01	3.67E-01	6.50E+00	3.67E-01	3.39E-01	-6.79E+01
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	1.06E-08	1.76E-12	2.97E-11	1.76E-12	1.02E-12	-6.10E-09
AP	Acidification potential of land and water	[kg SO_2-Eq.]	7.22E-01	1.68E-03	1.48E-03	1.68E-03	8.63E-05	-5.21E-01
EP	Eutrophication potential	[kg $(PO_4)^{3-}$- Eq.]	4.63E-02	3.84E-04	2.58E-04	3.84E-04	6.53E-06	-3.02E-02
POCP	Formation potential of tropospheric ozone photochemical oxidants	[kg Ethen Eq.]	4.34E-02	-5.42E-04	1.05E-04	-5.42E-04	4.19E-06	-3.14E-02
ADPE	Abiotic depletion potential for non-fossil resources	[kg Sb Eq.]	2.71E-02	1.38E-08	1.17E-07	1.38E-08	2.24E-08	-2.14E-02
ADPF	Abiotic depletion potential for fossil resources	[MJ]	1.20E+03	5.07E+00	1.82E+00	5.07E+00	1.43E-01	-7.99E+02

RESULTS OF THE LCA - RESOURCE USE: One piece OneSystem Panic Bar Type B

Parameter	Parameter	Unit	A1 - A3	A4	A5	C2	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	2.15E+02	-	-	-	-	-
PERM	Renewable primary energy resources as material utilization	[MJ]	0.00E+00	-	-	-	-	-
PERT	Total use of renewable primary energy resources	[MJ]	2.15E+02	2.00E-01	1.70E-01	2.00E-01	1.05E-02	-5.76E+01
PENRE	Non-renewable primary energy as energy carrier	[MJ]	1.32E+03	-	-	-	-	-
PENRM	Non-renewable primary energy as material utilization	[MJ]	0.00E+00	-	-	-	-	-
PENRT	Total use of non-renewable primary energy resources	[MJ]	1.32E+03	5.09E+00	2.13E+00	5.09E+00	1.59E-01	-8.53E+02
SM	Use of secondary material	[kg]	1.59E+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	2.26E-02
NRSF	Use of non-renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E-01
FW	Use of net fresh water	[m^3]	4.57E-01	1.41E-04	1.89E-02	1.41E-04	8.27E-04	-2.95E-01

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One piece OneSystem Panic Bar Type B

Parameter	Parameter	Unit	A1 - A3	A4	A5	C2	C4	D
HWD	Hazardous waste disposed	[kg]	4.76E-02	1.16E-05	1.47E-04	1.16E-05	1.11E-05	-5.77E-04
NHWD	Non-hazardous waste disposed	[kg]	1.37E+01	6.40E-04	1.63E-01	6.40E-04	3.15E-02	-8.93E+00
RWD	Radioactive waste disposed	[kg]	4.78E-02	6.66E-06	1.25E-04	6.66E-06	6.34E-06	-2.19E-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	4.59E+00	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	8.22E+00	0.00E+00	6.48E-01	0.00E+00
EET	Exported thermal energy	[MJ]	0.00E+00	0.00E+00	2.32E+01	0.00E+00	1.78E+00	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 93% 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 stainless steel and steel, with almost 100%, mainly due to the energy consumption on this process. Stainless steel and steel account with 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. The negative values of CML - POCP for transports (module A4 and C2) due to the CML impact characterization factor for NOx emissions. The most important substance contributing to the ozone forming process is nitrogen dioxide (NO2), which is cleaved under the influence of sunlight. This produces nitric oxide (NO) and ozone (O3). Conversely nitrogen monoxide and ozone form NO2 and O2. Ozone formation and ozone depletion are in equilibrium, the ozone concentration depend on the ratio of NO2 and NO emissions to air and the solar radiation.
Therefore NO has a negative and NO2 a positive characterization factor according to CML. NO is mainly emitted from internal combustion engines (ICE) while the fuel combustion. This leads to a negative overall value for the POCP for transports (using ICE) according to CML methodology.

In the end-of-life stage (module D, negative values), loads and benefits are assessed. 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

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

EN 14846:2008
Building hardware — Locks and latches — Electromechanically operated locks and striking plates — Requirements and test methods

ISO 9001: 2008-12
ISO 9001: 2008: Quality management systems - Requirements (ISO 9001:2008); Trilingual version EN ISO 9001:2008.

OHSAS 18001: 2007
OHSAS 18001: 2007: Occupational health and safety management systems. Requirements.

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

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

ANSI/BHMA A156.3-2008
Standard ANSI/BHMA A156.3-2008 establishes requirements for exit devices and trim, automatic and self-latching flush bolts, removable mullions, coordinators, and carry-open bars. Functions and types are described and numbered.

A117.1 Accessibility Code
Standard for Accessible and Usable Buildings and Facilities as mandated by law and incorporated by reference by the States and Municipalities, including Ohio in the Ohio Administrative Code 4401:8-44-01.

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

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	MND	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: One piece OneSystem Panic Bar Type B

Parameter	Parameter	Unit	A1 - A3	A4	A5	C2	C4	D
GWP	Global warming potential	[kg CO_2-Eq.]	9.37E+01	3.67E-01	6.50E+00	3.67E-01	3.39E-01	-6.79E+01
ODP	Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	1.13E-08	1.87E-12	3.16E-11	1.87E-12	1.08E-12	-6.49E-09
AP	Acidification potential of land and water	[kg SO_2-Eq.]	6.96E-01	2.20E-03	1.79E-03	2.20E-03	1.01E-04	-4.99E-01
EP	Eutrophication potential	[kg N-eq.]	2.70E-02	1.55E-04	1.03E-04	1.55E-04	3.08E-06	-1.41E-02
Smog	Ground-level smog formation potential	[kg O_3-eq.]	7.74E+00	4.52E-02	4.19E-02	4.52E-02	7.95E-04	-5.44E+00
Resources	Resources – fossil resources	[MJ]	8.33E+01	7.29E-01	2.14E-01	7.29E-01	1.47E-02	-5.00E+01

RESULTS OF THE LCA - RESOURCE USE: One piece OneSystem Panic Bar Type B

Parameter	Parameter	Unit	A1 - A3	A4	A5	C2	C4	D
PERE	Renewable primary energy as energy carrier	[MJ]	2.15E+02	-	-	-	-	-
PERM	Renewable primary energy resources as material utilization	[MJ]	0.00E+00	-	-	-	-	-
PERT	Total use of renewable primary energy resources	[MJ]	2.15E+02	2.00E-01	1.70E-01	2.00E-01	1.05E-02	-5.76E+01
PENRE	Non-renewable primary energy as energy carrier	[MJ]	1.32E+03	-	-	-	-	-
PENRM	Non-renewable primary energy as material utilization	[MJ]	0.00E+00	-	-	-	-	-
PENRT	Total use of non-renewable primary energy resources	[MJ]	1.32E+03	5.09E+00	2.13E+00	5.09E+00	1.59E-01	-8.53E+02
SM	Use of secondary material	[kg]	1.59E+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	2.26E-02
NRSF	Use of non-renewable secondary fuels	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E-01
FW	Use of net fresh water	[m^3]	4.57E-01	1.41E-04	1.89E-02	1.41E-04	8.27E-04	-2.95E-01

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES: One piece OneSystem Panic Bar Type B

Parameter	Parameter	Unit	A1 - A3	A4	A5	C2	C4	D
HWD	Hazardous waste disposed	[kg]	4.76E-02	1.16E-05	1.47E-04	1.16E-05	1.11E-05	-5.77E-04
NHWD	Non-hazardous waste disposed	[kg]	1.37E+01	6.40E-04	1.63E-01	6.40E-04	3.15E-02	-8.93E+00
RWD	Radioactive waste disposed	[kg]	4.78E-02	6.66E-06	1.25E-04	6.66E-06	6.34E-06	-2.19E-02
CRU	Components for re-use	[kg]	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	4.59E+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	-
EEE	Exported electrical energy	[MJ]	0.00E+00	0.00E+00	8.22E+00	0.00E+00	6.48E-01	-
EET	Exported thermal energy	[MJ]	0.00E+00	0.00E+00	2.32E+01	0.00E+00	1.78E+00	-

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