ENVIRONMENTAL PRODUCT DECLARATION

as per *ISO 14025* and *EN 15804+A2*

Owner of the Declaration	Magnetic Autocontrol GmbH
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-MAG-20230361-CCI1-EN
Issue date	16.01.2024
Valid to	15.01.2029

FlowMotion® mWing

Magnetic Autocontrol GmbH

www.ibu-epd.com | https://epd-online.com

General Information

Magnetic Autocontrol GmbH

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-MAG-20230361-CCI1-EN

This declaration is based on the product category rules:

Electronic and physical Access Control Systems, 01.08.2021
(PCR checked and approved by the SVR)

Issue date

16.01.2024

Valid to

15.01.2029

Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)

Florian Pronold
(Managing Director Institut Bauen und Umwelt e.V.)

FlowMotion® mWing

Owner of the declaration

Magnetic Autocontrol GmbH
Grienmatt 20
79650 Schopfheim
Germany

Declared product / declared unit

1 piece of FlowMotion® mWing speed gate (standard height)

Scope:

The EPD refers to FlowMotion® mWing speed gate (Product dimensions: 1300 x 1050 x 180 mm; glass door standard height: 888 mm) manufactured by Magnetic Autocontrol GmbH. The production site for the product is situated in Schopfheim, Germany. The pre-products are supplied from Germany, Italy, Bulgaria, China, Iceland, Tunisia, Indonesia and Great Britain.

The LCA results declared in the EPD are based on the data collected in 2022 and cover the entire life cycle of FlowMotion® mWing speed gate (standard height).

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.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR			
Independent verification of the declaration and data according to ISO 14025:2011			
☐	internally	☒	externally

Dr.-Ing. Nikolay Minkov,
(Independent verifier)

Product

Product description/Product definition

The FlowMotion® mWing is designed for the control of persons entering or leaving an area with restricted access. The FlowMotion® mWing speed gate is intended for the passage of persons safely, speedily and without any help. Different security levels are possible, mechanical locking and comprehensive monitoring of the access area.

Magnetic drive technology complies with current norms and standards, including *DIN EN 17352*. To ensure user safety at all times without the need for complex and expensive monitoring equipment, the Magnetic Safety Drive System (MSDS®) complies with an innovative low-energy concept. The interaction of the drive motor, power supply and control system ensures that only a limited amount of energy can be fed into the system at any time. This means that all Momentum family locks with MSDS are safe to use at all times.

The housing is made out of mDure® (Polyurethane) with a wide range of colour options. It is highly resistant to impacts, scratches and abrasion. It can cushion mechanical effects without suffering any lasting deformation. The material is extremely durable and chemically resistant – against disinfectants and detergents, as well as against aggressive chemicals, UV radiation and corrosion. It is free of pollutants and can be recycled, disposed of as household waste, or burnt without polluting the environment.

The product consists of a stainless steel base frame and plate. The wings are made of glass. The side panels of the housing are attached to the frame without any visible connecting elements and thus create the impression of seamless construction.

User guidance:

- Frame-edge illumination is integrated and light elements offer flexible use to show operational readiness, the direction of passage or the validity of access authorization
- The white floor illumination simplifies orientation in the entrance area for visitors.
- The passage direction indicator in the front face plate shows visitors if the passage is open to them and whether they have valid access authorization.

Unobstructed escape routes:

mWing allows free passage in the case of a power outage or an alarm signal. The wing doors allow the setting up of particularly wide, officially approved escape routes.

For the placing on the market in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) the following legal provisions apply:

Directives:

- *Machinery Directive 2006/42/EC*
- *Electromagnetic Compatibility Directive 2014/30/EU*
- *ROHS2 Directive 2011/65/EU*

Norms and standards:

- *EN17352:2022* Power operated pedestrian entrance control equipment - Safety in use - Requirements and test methods
- *EN 60335-2-103* Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows
- *EN 60034-1* Duty cycle S1 (continuous operation), 100%
- *EN 13849-1* Performance Level d
- *DIN EN 61000-6-2: 2005* and *Amendment:2011* Electromagnetic Compatibility (EMC)
- *DIN EN 61000-6-3:2007* and *A1:2011* Electromagnetic Compatibility (EMC)
- Enclosure protection rating: IP54 (according *EN 60529*)
- Blocking element: single-layer safety glass according *EN 12150-1*, laminated glass according *EN ISO 12543-1* and *EN ISO 12543-2* or acrylic glass EN ISO 179-1
- Escape and rescue route approval:
  According to EltVTR (Directive on electrical locking systems for doors in escape routes). This is currently still the valid standard for Germany.
- *DIN EN 13637* (locks and building hardware - electrically controlled escape door systems for doors in escape routes - requirements and test methods).
- Resistant against corrosion, UV light, detergents and disinfectants. UL tested according to *UL0746C* f1 (yellow card E 83364)
- Fire behavior: tested according to *UL-94* V0 and *UL 0746C*

Application

The product can be used at the following locations:

- Office and administrative buildings
- Ministries and government building
- Banks and financial institutions
- Industrial buildings
- Schools and universities
- Sportive areas
- Indoor and outdoor use

Technical Data

The product is delivered in two separate modules, each packed individually. The details of each module are given below:

1. Module 1:
   Name: FMWI_AL, mWing A-Modul
   Weight without packaging: 75 kg

2. Module 2:
   Name: FMWI_BL, mWing B-Modul
   Weight without packaging: 79 kg

Information on Packaging:
Mainly corrugated board (13.2 kg) and wooden pallets (22.2 kg) are used for packaging of the products. The other packaging material includes steel screws, steel sheet and plastic film and the total packaging weight is 35.8 kg. Total weight of module A and module B including packaging is 190.5 kg.

Constructional data

Name	Value	Unit
Power supply /supply voltage (minimum)	100 to 240 V AC ± 10 %, 50 to 60 Hz	V
Current Requirements	1 - 2.4	A
Operating Temprature	-30 to +55	°C
Power consumption "Operating without illumination and locking unit"	35	W
Power consumption "Operating with illumination"	87	W
Power consumption "Operating with illumination and locking unit"	107	W
Power consumption "Standby without illumination and locking unit"	20	W
Power consumption "Standby with Illumination	72	W
Power consumption "Standby with illumination and locking unit"	102	W
Ambient Temperature	-30 to +55	°C
Height (Dimension)	1.05	m
Width (Dimension)	0.18	m
Length (Dimension)	1.3	m
IP rating	IP54	
Applicability	Indoor and outdoor	

Product not harmonised in accordance with CPR bit in accordance with other provisions for harmonisation of the EU:

- Machinery Directive 2006/42/EC
- Electromagnetic Compatibility Directive 2014/30/EU
- ROHS2 Directive 2011/65/EU
- EN17352:2022 Power operated pedestrian entrance control equipment - Safety in use - Requirements and test methods
- EN 60335-2-103 Household and similar electrical appliances - Safety - Part 2-103: Particular requirements for drives for gates, doors and windows
- EN 60034-1 Duty cycle S1 (continuous operation), 100%
- EN 13849-1 Performance Level d
- DIN EN 61000-6-2: 2005 and Amendment:2011 Electromagnetic Compatibility (EMC)
- DIN EN 61000-6-3:2007 and A1:2011 Electromagnetic Compatibility (EMC)
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Base materials/Ancillary materials

The weight of the product without packaging is 154 kg. The material composition is given in the following table:

Name	Value	Unit
Glass	32	%
Plastics	30	%
Steel	28	%
Aluminium	2	%
Others (cables, magnets, electronics etc.)	8	%

This product/article/at least one partial article contains substances listed in the candidate list (date: 28/06/2023) exceeding 0.1 percentage by mass: no

Reference service life

As an RSL according to ISO 15686 cannot be declared, the service life according to the "Bewertungssystem Nachhaltiges Bauen (BNB)" is 20 years, which corresponds to 14.6 million closing cycles.

LCA: Calculation rules

Declared Unit

The declared functional unit is to provide 14,6 Million closing cycles during a reference lifetime of 20 years i.e. equivalent to 1 unit of FlowMotion® mWing speed gate (Product dimensions: 1300 x 1050 x 180 mm; glass door standard height: 888 mm).

Declared unit

Name	Value	Unit
Declared unit	1	pce.
Mass reference	190.5	kg/pce

System boundary

Type of EPD: cradle to grave

The system boundary of the EPD follows the modular structure defined by *EN 15804*.

- Modules A1 to A3 include the provision and processing of raw materials and pre-products, the transport to the manufacturer's production site and the production of the mWing product.
- Module A4 includes the transportation of the product to the installation site. Module A5 covers the manual installation of the product (negligible impact) and treatment and disposal of packaging material.
- The product has no direct emissions (B1) and is designed so that no maintenance is required (B2) or parts need to be replaced (B4). Furthermore, no standard repairs (B3) or refurbishments (B5) are fore-seen. The use of the product does not require water consumption (B7) but requires electricity (B6) throughout its use stage.
- Module C1 includes manual disassembly of the product and C2 includes transportation of the waste to treatment site. Module C3 and C4 include emissions of processing waste through a shredder and waste land filling and the final disposal of waste.
- Module D comprises the recycling of metals and gives the recycling potentials as well as potential benefits from energy substitution.

Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product´s lifespan: Europe

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. LCA is conducted using LCA for expert software

along with Managed Lifecycle Content (MLC) (previously known as Gabi) MLC Modelling Database *CUP Version 2022.2*.

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

The calculation of the biogenic carbon content is based on the technical consideration, that one kilogram of corrugated board (paper) consists of 43% biogenic carbon by mass and one kilogram of pallet with 40% water content consists of 36% of biogenic carbon. The product consists of 0.0044 kg of corrugated board in the form of paper labelling. Packaging consists of 13.2 kg of corrugated board and 22.2 kg of wooden pallets per piece of mWing module.

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO_2.

Information on describing the biogenic Carbon Content at factory gate

Name	Value	Unit
Biogenic carbon content in product	0.0019	kg C
Biogenic carbon content in accompanying packaging	13.7	kg C

The following technical scenario information is required for the declared modules:

Transport to the building site (A4)

Table shows the average distance between the production site and the European installation site. The product is transported via Truck.

Name	Value	Unit
Transport distance	677	km
Capacity utilisation (including empty runs)	61	%

Installation into the building (A5)

mWing module is installed manually on the site which requires negligible material and energy inputs. A5 further includes the treatment of packaging waste. The packaging waste consists of a wooden pallet, plastic wrap and metals parts (e.g. screws).

Name	Value	Unit
Output substances following waste treatment on site (packaging)	35.8	kg

Service life is declared by the manufacturer and is valid under ambient conditions stated under construction data.

Reference service life

Name	Value	Unit
Life Span according to the manufacturer	20	a

Operational energy use (B6)

Based on the parameters listed below, the total energy consumption for 14.6 million cycles in 20 years is 3624 kWh.

Name	Value	Unit
Electricity consumption (Operating mode)	35	W
Electricity consumption (Normal Standby Current)	20	W
Cycle duration	2	s
Closing cycles per day	2000	times
Operating mode per day	1,1	hours
Standby mode per day	22,9	hours

End of life (C1-C4)

The collection rate of the product is 100% and the waste collected is processed at the end of life under the scenarios defined in the table below.

Name	Value	Unit
Collected separately waste type waste type	155	kg
Recycling	54.25	kg
Energy recovery	48.05	kg
Landfilling	52.7	kg

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

Product is not intended for re-used. Assumed collection rate of 100%. Net credits are received for the energy recovery after incineration and secondary material production after recycling metals, plastics and electronics.

Name	Value	Unit

Note: Modules B1-B5, B7 and C1 are zero have negligible material and energy inputs as described under the the section "system boundary".

LCA: Results

The LCA results provided are provided for 1 unit of FlowMotion® mWing speed gate (standard height) with a service life of 20 years committing 14.6 million closing cycles.

Note: The impact of the product for the modules B1-B5, B7 and C1 are zero under the conditions described in the section "system boundary".

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

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the 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	X	X	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 piece FlowMotion® mWing speed gate (standard height)

Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq	6.59E+02	5.31E+00	8.44E+02	9.85E+00	3.7E+01	0	0	0	0	0	1.35E+03	0	0	5.91E+00	1.2E+02	7.63E-01	-1.89E+02
GWP-fossil	kg CO_2 eq	6.58E+02	5.41E+00	8.97E+02	1E+01	1.14E+00	0	0	0	0	0	1.34E+03	0	0	6.02E+00	1.2E+02	7.84E-01	-1.89E+02
GWP-biogenic	kg CO_2 eq	1.17E+00	0	-5.31E+01	0	3.59E+01	0	0	0	0	0	1.21E+01	0	0	0	1.59E-01	-2.28E-02	-3.24E-01
GWP-luluc	kg CO_2 eq	2.01E-01	3.6E-02	1.07E-01	6.68E-02	1E-04	0	0	0	0	0	2.83E-01	0	0	4E-02	7.82E-03	1.43E-03	-4.69E-02
ODP	kg CFC11 eq	5.86E-09	5.24E-13	1.3E-09	9.73E-13	3.89E-12	0	0	0	0	0	1.96E-08	0	0	5.84E-13	2.88E-10	1.86E-12	-4E-10
AP	mol H^+ eq	2.97E+00	1.1E-02	8.26E-01	2.04E-02	5.78E-03	0	0	0	0	0	2.94E+00	0	0	1.23E-02	5.45E-02	5.48E-03	-6.11E-01
EP-freshwater	kg P eq	1.33E-03	1.91E-05	1.39E-03	3.54E-05	9.26E-07	0	0	0	0	0	3.91E-03	0	0	2.12E-05	5.99E-05	1.32E-06	-1.56E-04
EP-marine	kg N eq	5.46E-01	4.57E-03	3.18E-01	8.48E-03	1.91E-03	0	0	0	0	0	6.59E-01	0	0	5.09E-03	1.17E-02	1.4E-03	-1.07E-01
EP-terrestrial	mol N eq	5.95E+00	5.21E-02	3.42E+00	9.66E-02	2.7E-02	0	0	0	0	0	6.92E+00	0	0	5.79E-02	1.64E-01	1.54E-02	-1.16E+00
POCP	kg NMVOC eq	1.69E+00	9.82E-03	8.73E-01	1.82E-02	5.21E-03	0	0	0	0	0	1.78E+00	0	0	1.09E-02	4.61E-02	4.26E-03	-3.48E-01
ADPE	kg Sb eq	1.47E-02	5.38E-07	6.15E-05	9.99E-07	9.5E-08	0	0	0	0	0	3.65E-04	0	0	5.99E-07	7.48E-06	8.05E-08	-6.15E-03
ADPF	MJ	9.86E+03	7.01E+01	1.39E+04	1.3E+02	8.76E+00	0	0	0	0	0	2.43E+04	0	0	7.8E+01	2.61E+02	1.03E+01	-2.14E+03
WDP	m^3 world eq deprived	2.29E+02	5.97E-02	5.79E+00	1.11E-01	3.88E+00	0	0	0	0	0	3.05E+02	0	0	6.65E-02	6.72E+00	8.77E-02	-7.42E+00

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential)

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 piece FlowMotion® mWing speed gate (standard height)

Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	1.51E+03	4.86E+00	1.43E+03	9.01E+00	4.8E+02	0	0	0	0	0	1.35E+04	0	0	5.41E+00	1.26E+02	1.54E+00	-3.73E+02
PERM	MJ	7.92E-02	0	4.77E+02	0	-4.77E+02	0	0	0	0	0	0	0	0	0	7.92E-02	0	0
PERT	MJ	1.51E+03	4.86E+00	9.51E+02	9.01E+00	2.31E+00	0	0	0	0	0	1.35E+04	0	0	5.41E+00	1.26E+02	1.54E+00	-3.73E+02
PENRE	MJ	8.28E+03	7.04E+01	1.39E+04	1.31E+02	1.69E+01	0	0	0	0	0	2.43E+04	0	0	7.83E+01	-1.33E+03	1.03E+01	-2.15E+03
PENRM	MJ	1.59E+03	0	8.08E+00	0	-8.08E+00	0	0	0	0	0	0	0	0	0	1.59E+03	0	0
PENRT	MJ	9.87E	7.04E	1.39E	1.31E	8.77E	0	0	0	0	0	2.43E	0	0	7.83E	2.61E	1.03E	-2.15E

		+03	+01	+04	+02	+00						+04			+01	+02	+01	+03
SM	kg	3.65E-03	0	1.07E+01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW	m^3	6.68E+00	5.61E-03	1.27E+00	1.04E-02	9.14E-02	0	0	0	0	0	1.29E+01	0	0	6.25E-03	2.29E-01	2.65E-03	-6.07E-01

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

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2:
1 piece FlowMotion® mWing speed gate (standard height)

Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	3.29E-05	3.72E-10	5.83E-06	6.91E-10	8.52E-10	0	0	0	0	0	2.1E-06	0	0	4.14E-10	7.1E-08	5.6E-10	-1.32E-07
NHWD	kg	4.27E+01	1.15E-02	5.93E+00	2.13E-02	3.87E-01	0	0	0	0	0	1.83E+01	0	0	1.28E-02	8.28E+00	5.17E+01	-8.79E+00
RWD	kg	1.66E-01	1.31E-04	6.3E-01	2.42E-04	5.16E-04	0	0	0	0	0	3.88E+00	0	0	1.45E-04	1.12E-02	1.18E-04	-9E-02
CRU	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	1.4E-01	0	0	0	0	0	0	0	0	0	4.78E+01	0	0
MER	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.19E+01	0	0
EEE	MJ	0	0	0	0	5.37E+01	0	0	0	0	0	0	0	0	0	1.5E+02	0	0
EET	MJ	0	0	0	0	9.65E+01	0	0	0	0	0	0	0	0	0	3.47E+02	0	0

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional:
1 piece FlowMotion® mWing speed gate (standard height)

Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IR	kBq U235 eq	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ETP-fw	CTUe	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HTP-c	CTUh	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HTP-nc	CTUh	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SQP	SQP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index

The LCA results of "1 piece FlowMotion® mWing speed gate (standard height)" are not declared for additional impact categories according to EN 15804+A2: optional as the uncertainties in these indicators are high.

Disclaimer 1 – for the indicator 'Potential Human exposure efficiency relative to U235'. 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 or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators 'abiotic depletion potential for non-fossil resources', 'abiotic depletion potential for fossil resources',' water (user) deprivation potential, deprivation-weighted water consumption', 'potential comparative toxic unit for ecosystems',' potential comparative toxic unit for humans – cancerogenic', 'Potential comparative toxic unit for humans - not cancerogenic',' potential soil quality index'. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

References

Directives

Machinery Directive 2006/42/EC
Machinery Directive 2006/42/EC on machinery, and amending Directive 95/16/EC (recast)

Electromagnetic Compatibility Directive 2014/30/EU
Electromagnetic Compatibility Directive 2014/30/EU on the harmonization of the laws of the Member States relating to electromagnetic compatibility (recast)

ROHS2 Directive 2011/65/EU
Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast)

Standards and Norms:

EN 15804
EN 15804:2012+A2:2019+AC:2021, Sustainability of construction works - Environmental Product Declarations - Core rules for the product category of construction products.

EN ISO 14040
EN ISO 14044:2006-10 Environmental management - Life cycle assessment - Requirements and guidelines

EN ISO 14044: http
EN ISO 14044:2006-10 Environmental management - Life cycle assessment - Requirements and guidelines

EN17352:2022
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Publisher

Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

Programme holder

Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

Author of the Life Cycle Assessment

Sphera Solutions GmbH
Hauptstraße 111- 113
70771 Leinfelden-Echterdingen
Germany

+49 711 341817-0
info@sphera.com
www.sphera.com

Owner of the Declaration

Magnetic Autocontrol GmbH
Grienmatt 20
79650 Schopfheim
Germany

+497622695678
hwolf@ac-magnetic.de
https://www.magnetic-access.com/de-DE/