

**Environmental
Product
Declaration**

According to EN15804+A2 (+indicators A1)

This declaration is for:
NEXIEZ-MRL Version2 elevator

Provided by:
Mitsubishi Electric Building Solutions Corporation



MRPI® registration
1.1.00761.2025

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

date of first issue
19-12-2024
date of this issue
19-12-2024
expiry date
19-12-2029



COMPANY INFORMATION

Mitsubishi Electric Building Solutions Corporation
Tokyo Building, 2-7-3, Marunouchi, Chiyoda-ku
100-8310
Tokyo
Japan
(+81)-3-3218-3102
Main office Japan
<https://www.mebs.com/index.html>

MRPI® REGISTRATION

1.1.00761.2025

DATE OF THIS ISSUE

19-12-2024

EXPIRY DATE

19-12-2029

SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Anne Kees Jeeninga, Advieslab V.O.F.. The LCA study has been done by Chantal Houben, SGS INTRON. The certificate is based on an LCA-dossier according to EN15804+A2 (+indicators A1). It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPDs of construction products may not be comparable if they do not comply with EN15804+A2. Declaration of SVHC that are listed on the 'Candidate list of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

PROGRAM OPERATOR

Stichting MRPI®
Kingsfordweg 151
1043 GR
Amsterdam

PRODUCT

NEXIEZ-MRL Version2 elevator

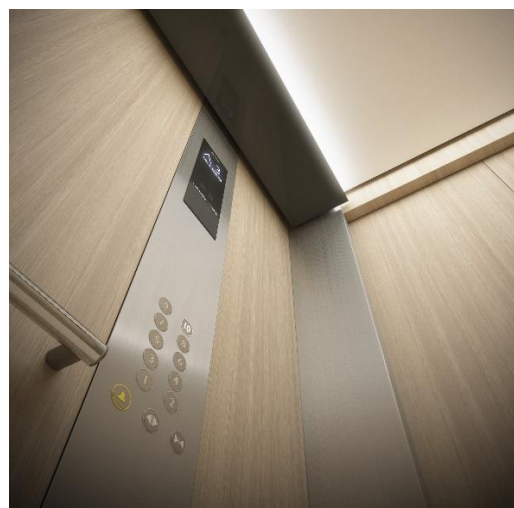
DECLARED UNIT / FUNCTIONAL UNIT

1 Tonkilometer (tkm)

DESCRIPTION OF PRODUCT



The NEXIEZ-MRL Version2 is a current global design machine roomless elevator with a regenerative converter (PCNV) and a rated load of up to 1800 kg with transport of passengers in low- to mid-rise buildings as main application.

VISUAL PRODUCT



MORE INFORMATION

<https://www.mebs.com/resources/downloads/pdf/gn030.pdf>

<p>Ing. L. L. Oosterveen MSc. MBA Managing Director MRPI</p> 	<p>DEMONSTRATION OF VERIFICATION</p>
	<p>CEN standard EN15804 serves as the core PCR [1]</p>
	<p>Independent verification of the declaration and data according to EN15804+A2 (+indicators A1)</p> <p>internal: external: X</p>
	<p>Third party verifier: Anne Kees Jeeninga, Advieslab V.O.F.</p> 
<p>[1] PCR = Product Category Rules</p>	

DETAILED PRODUCT DESCRIPTION (PART 1)

NEXIEZ-MRL Version2, is our global flagship model that is environmentally consciously designed with its world-renowned durability and premium quality. NEXIEZ-MRL Version2 is the perfect elevator for supremely comfortable passenger transportation in offices and hotels as well as residential buildings, due to its reliability, precision and silent operation. NEXIEZ-MRL Version2 offers advanced connectivity with other building facilities to enhance the value of the building via mobile phones, automated robots and security devices, but is not limited to these.

The production of the NEXIEZ-MRL Version2 takes place in Thailand and Europe. On the production site in Thailand, the steel, plastic, and electronic components are assembled. Afterwards, packaging is added for transport to Europe. In Europe, some components are installed to finalize the elevator. The production in Europe is based on the production in the Netherlands.

The elevator is as far as possible and ready for installation. All additional materials necessary for operating are included.

Product components: Steel, aluminium, plastics, wood, electronics, motor

Reference service life: 40 years.

Description and application	Value
Type of installation	New generic machine roomless elevator
Commercial name	NEXIEZ-MRL Version2
Main purpose	Passenger lift
Type of lift	Electric
Type of drive system	Gearless traction
Geographic region of intended installation	Europe
Recommended application (main market)	buildings, residential buildings, offices, hotels, hospitals, shopping malls and museums

Characteristics	Value	Range
Rated load (fixed or range)	1000 kg	450 kg up to 1800 kg
Rated speed (fixed or range)	1.0 m/s	1.0, 1.6, 1.75, 2.0, 2.5 m/s
Number of stops (fixed or range)	5	2 to 30
Travelled height (fixed or range)	15 m	3 to 80 m
Number of operating days per year (fixed or range)	365	260 - 365
Applied usage category (UC) according to ISO 25745-2	4	

Weight	
Weight of product	5819,6 kg
Weight of packaging	718,7 kg
Weight of maintenance components	581,4 kg



DETAILED PRODUCT DESCRIPTION (PART 4)

The energy processes used in the calculation are listed in the table below. The process used for the energy in the Netherlands was adapted by setting the process Electricity, high voltage {NL}| electricity production, wind, <1MW turbine, onshore | Cut-off, U to 1 and all other high voltage processes in the process Electricity, high voltage {NL}| market for electricity, high voltage | Cut-off, U to 0. This new process replaces the existing process in subsequent processes.

Global warming potential of 1 kWh energy	Process	kg CO2eq
Production energy: Thailand	Electricity, low voltage {TH} market for electricity, low voltage Cut-off, U	0,787
Production energy: Netherlands (100% windenergy)	Electricity, low voltage {NL} market for electricity, low voltage Cut-off, U (100% NL windenergy)	0,0278
Installation and usage energy: Europe	Electricity, low voltage {Europe without Switzerland} market group for electricity, low voltage Cut-off, U	0,373

Component (> 1%)	(kg / %)
Ferrous metals	91,60%
Non-ferrous metals	3,69%
Plastics and rubbers	0,36%
Inorganic materials (e.g. concrete)	0,36%
Organic materials (e.g. paper or wood)	0,09%
Lubricants (e.g. oils and greases), paintings, coatings, adhesives and fillers	0,27%
Electric and electronic equipment	3,47%
Batteries and accumulators	0,16%
Refrigerants in car air conditioners	0,00%
Other materials	0,01%
Total mass of materials	5820

SCOPE AND TYPE

The LCA for the NEXIEZ-MRL Version2 includes the entire life cycle. All major steps from the extraction of raw materials to the end-of-life of the product are included in the scope of the study. This EPD is for NEXIEZ-MRL Version2, a new generic machine roomless elevator, with representative load rate of 1000 kg. The elevator is produced by Mitsubishi Electric Building Solutions. The main production location is Mitsubishi Elevator Asia Co., Ltd. (AMEC) in Chonburi Thailand. After the main production the elevator is then transported to Mitsubishi Elevator Europe(MEE, EMEC) in Veenendaal, The Netherlands. The end-of-life scenario for the elevator is described within the Dutch context. The LCA is produced with SimaPro v10 software and background database is Ecoinvent 3.9.

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USER STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport gate to site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse - Recovery - Recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	ND	X	ND	ND	ND	X	ND	X	X	X	X	X

X = Modules Assessed

ND = Not Declared

ENVIRONMENTAL IMPACT per functional unit (core indicators A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO2 eq	9,13E+00	3,17E-01	1,54E-01	9,60E+00	3,59E-02	5,00E-02	ND	5,48E+00	ND	ND	ND	7,45E+00	ND	ND	1,27E-02	4,41E-02	1,20E-01	-2,10E+00
GWP-fossil	kg CO2 eq	9,11E+00	3,17E-01	1,69E-01	9,60E+00	3,58E-02	3,41E-02	ND	5,47E+00	ND	ND	ND	7,43E+00	ND	ND	1,27E-02	4,40E-02	1,18E-01	-2,10E+00
GWP-biogenic	kg CO2 eq	-1,76E-03	0,00E+00	-1,55E-02	-1,73E-02	0,00E+00	1,58E-02	ND	-1,80E-06	ND	ND	ND	0,00E+00	ND	ND	0,00E+00	0,00E+00	1,77E-03	0,00E+00
GWP-luluc	kg CO2 eq	1,78E-02	4,03E-04	5,44E-04	1,87E-02	1,28E-04	1,61E-04	ND	1,04E-02	ND	ND	ND	1,86E-02	ND	ND	4,51E-05	5,97E-05	9,23E-07	-2,89E-03
ODP	kg CFC11 eq	3,95E-07	4,94E-09	4,04E-09	4,04E-07	6,37E-10	7,76E-10	ND	3,28E-07	ND	ND	ND	1,41E-07	ND	ND	2,25E-10	6,43E-10	7,91E-11	-4,26E-08
AP	mol H+ eq.	7,78E-02	8,02E-03	7,08E-04	8,65E-02	1,71E-04	2,61E-04	ND	3,87E-02	ND	ND	ND	4,26E-02	ND	ND	6,06E-05	4,26E-04	2,20E-05	-3,75E-02
EP-fresh water	kg PO4 eq.	1,30E-03	1,59E-06	1,25E-05	1,31E-03	3,56E-07	3,20E-06	ND	1,08E-03	ND	ND	ND	7,35E-04	ND	ND	1,26E-07	1,82E-06	2,90E-08	-2,27E-04
EP-marine	kg N eq.	1,40E-02	2,04E-03	1,40E-04	1,62E-02	6,51E-05	8,75E-05	ND	7,21E-03	ND	ND	ND	5,35E-03	ND	ND	2,30E-05	9,79E-05	1,05E-05	-3,06E-03
EP-terrestrial	mol N eq.	1,37E-01	2,25E-02	1,67E-03	1,61E-01	6,94E-04	9,88E-04	ND	8,31E-02	ND	ND	ND	6,23E-02	ND	ND	2,46E-04	1,12E-03	1,07E-04	-4,26E-02
POCP	kg NMVOC eq.	4,35E-02	6,16E-03	5,01E-04	5,02E-02	2,37E-04	3,01E-04	ND	2,45E-02	ND	ND	ND	2,00E-02	ND	ND	8,39E-05	3,38E-04	2,87E-05	-1,48E-02
ADP-minerals & metals	kg Sb eq.	2,09E-03	4,29E-07	1,35E-06	2,09E-03	1,12E-07	2,09E-07	ND	1,92E-03	ND	ND	ND	8,88E-05	ND	ND	3,97E-08	2,24E-06	4,67E-09	-9,26E-04
ADP-fossil	MJ, net calorific value	1,09E+02	4,00E+00	2,26E+00	1,15E+02	5,12E-01	6,11E-01	ND	7,01E+01	ND	ND	ND	1,68E+02	ND	ND	1,81E-01	5,70E-01	2,82E-02	-2,23E+01
WDP	m3 world eq. Deprived	2,66E+00	1,16E-02	3,71E-02	2,71E+00	2,80E-03	3,97E-02	ND	9,55E-01	ND	ND	ND	1,90E+00	ND	ND	9,90E-04	6,98E-03	2,31E-03	-1,55E+00

GWP-total	=	Global Warming Potential total
GWP-fossil	=	Global Warming Potential fossil fuels
GWP-biogenic	=	Global Warming Potential biogenic total
GWP-luluc	=	Global Warming Potential land use and land use change
ODP	=	Depletion potential of the stratospheric ozone layer
AP	=	Acidification Potential, Accumulated Exceedence
EP-freshwater	=	Eutrophication Potential, fraction of nutrients reaching freshwater end compartment
EP-marine	=	Eutrophication Potential, fraction of nutrients reaching marine end compartment
EP-terrestrial	=	Eutrophication Potential, Accumulated Exceedence
POCP	=	Formation potential of tropospheric ozone photochemical oxidants
ADP-minerals & metals	=	Abiotic Depletion Potential for non-fossil resources [1]
ADP-fossil	=	Abiotic Depletion for fossil resources potential [1]
WDP	=	Water (user) deprivation potential, deprivation-weighted water consumption [1]

Disclaimer [1]:

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

ENVIRONMENTAL IMPACT per functional unit (additional indicators A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	6,26E-07	1,32E-08	4,69E-09	6,44E-07	3,53E-09	5,08E-09	ND	3,04E-07	ND	ND	ND	1,35E-07	ND	ND	1,25E-09	5,94E-09	1,95E-10	-2,05E-07
IRP	kBq U235 eq.	3,65E-01	9,80E-04	1,15E-03	3,67E-01	2,00E-04	3,26E-03	ND	2,46E-01	ND	ND	ND	1,50E+00	ND	ND	7,08E-05	1,45E-03	1,86E-05	-3,83E-02
ETP-fw	CTUe	1,93E+02	2,17E+00	7,19E-01	1,96E+02	3,78E-01	1,84E-01	ND	1,49E+02	ND	ND	ND	2,83E+01	ND	ND	1,34E-01	4,13E-01	4,42E-01	-5,99E+01
HTP-c	CTUh	3,08E-08	1,43E-10	9,86E-11	3,10E-08	1,90E-11	2,47E-10	ND	5,67E-09	ND	ND	ND	3,47E-09	ND	ND	6,70E-12	6,22E-11	5,82E-11	2,77E-09
HTP-nc	CTUh	5,74E-07	1,57E-09	2,13E-09	5,78E-07	4,12E-10	6,22E-10	ND	2,33E-07	ND	ND	ND	1,38E-07	ND	ND	1,46E-10	2,57E-09	7,92E-10	-3,33E-07
SQP	-	4,48E+01	8,77E-01	7,59E-01	4,64E+01	4,04E-01	6,85E+00	ND	2,53E+01	ND	ND	ND	3,29E+01	ND	ND	1,43E-01	9,16E-01	3,19E-02	-1,77E+01

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

Disclaimer [1]:

- This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste.

Disclaimer [2]:

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

OUTPUT FLOWS AND WASTE CATEGORIES per functional unit (A1 en A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	1,18E-03	2,10E-05	8,72E-06	1,21E-03	3,27E-06	1,89E-06	ND	3,35E-04	ND	ND	ND	2,96E-04	ND	ND	1,16E-06	2,96E-06	2,33E-07	-1,47E-04
NHWD	kg	1,72E+00	6,17E-02	2,17E-02	1,80E+00	3,39E-02	8,20E-03	ND	4,69E-01	ND	ND	ND	6,74E-01	ND	ND	1,20E-02	1,83E-02	7,22E-02	-2,28E-01
RWD	kg	2,95E-04	5,35E-07	7,99E-07	2,96E-04	1,17E-07	2,60E-06	ND	1,59E-04	ND	ND	ND	1,21E-03	ND	ND	4,15E-08	1,09E-06	1,17E-08	-2,37E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,31E-03	ND	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	0,00E+00	1,50E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	0,00E+00	0,00E+00	0,00E+00	1,63E-01
ETE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	0,00E+00	ND	ND	ND	0,00E+00	ND	ND	0,00E+00	0,00E+00	0,00E+00	2,81E-01

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

RESOURCE USE per functional unit (A1 and A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	1,17E+01	3,40E-02	2,85E-01	1,20E+01	7,25E-03	1,47E+00	INA	7,77E+00	INA	INA	INA	3,68E+01	INA	INA	2,56E-03	8,09E-02	8,52E-04	-2,93E+00
PERM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	0,00E+00	INA	INA	INA	0,00E+00	INA	INA	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	1,17E+01	3,40E-02	2,85E-01	1,20E+01	7,25E-03	1,47E+00	INA	7,77E+00	INA	INA	INA	3,68E+01	INA	INA	2,56E-03	8,09E-02	8,52E-04	-2,93E+00
PENRE	MJ	1,09E+02	4,00E+00	2,26E+00	1,15E+02	5,13E-01	6,11E-01	INA	7,01E+01	INA	INA	INA	1,68E+02	INA	INA	1,82E-01	5,70E-01	2,82E-02	-2,23E+01
PENRM	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	0,00E+00	INA	INA	INA	0,00E+00	INA	INA	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,09E+02	4,00E+00	2,26E+00	1,15E+02	5,13E-01	6,11E-01	INA	7,01E+01	INA	INA	INA	1,68E+02	INA	INA	1,82E-01	5,70E-01	2,82E-02	-2,23E+01
SM	kg	4,38E-01	0,00E+00	0,00E+00	4,38E-01	0,00E+00	0,00E+00	INA	1,62E-02	INA	INA	INA	0,00E+00	INA	INA	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	0,00E+00	INA	INA	INA	0,00E+00	INA	INA	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NSRF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	0,00E+00	INA	INA	INA	0,00E+00	INA	INA	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	8,72E-02	4,53E-04	1,09E-03	8,87E-02	1,24E-04	1,17E-03	INA	4,25E-02	INA	INA	INA	1,33E-01	INA	INA	4,38E-05	2,76E-04	8,33E-05	-3,66E-02

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

BIOGENIC CARBON CONTENT per functional unit (A1 and A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
BBCpr	kg C	2,07E+00	0,00E+00	0,00E+00	2,07E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
BCCpa	kg C	0,00E+00	0,00E+00	8,49E+01	8,49E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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

CALCULATION RULES (PART 1)

Data quality requirements follow EN15804+A2:2019. Data is of reference period 2022, representing data for the production of one NEXIEZ-MRL Version2 elevator. Processes used in the background modelling are referring to Ecoinvent 3.9. The technological and geographical coverage reflects the physical reality as far as possible.

Data quality is assessed as good on average and adequate to the goal and scope of the study.

Cut-off criteria and allocation procedures:

The only materials excluded from the calculation were wood packaging or installation material that is reused 5 times or more. No other cut-offs or allocation procedures were intentionally applied to inputs and outputs within the system boundaries in the models.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 1)

The product stage, A1-A3, includes the extraction and processing of raw materials for the product and the packaging, their transportation to the production site by truck and ship, transportation from production site in Thailand to the production site in the Netherlands and the manufacturing process. Electricity consumption is modelled using primary data on the amount and a dataset for normal Thai grid mix and 100% Dutch wind energy.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 2)

The installation stage (A4-A5) includes transport of the elevator to the installation site, and the materials and energy required to install the elevator into the building, also including treatment of waste from installation materials and packaging excluding wood that was reused 5 or more times.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 3)

The use stage includes refurbishment of the elevator by replacement of some components during the lifetime, and the power consumption of the elevator over the reference service life of 40 years. The NEXIEZ-MRL Version2 has a optional regenerative converter (PCNV) unit which has been included in the calculation. Mitsubishi Elevator Europe BV (EMEC) has the experience with Mitsubishi elevators that with the correct usage-based maintenance they last longer than 25 years. The RSL of 40 years was chosen because EMEC guarantees the lifespan of elevators at 40 years through the M-Use® program. EMEC remains the owner of these elevators and is therefore the risk-bearing party. The correct maintenance and replacement of critical components is of great importance here. These replacement parts are all included in the LCA. In addition, EMEC has many elevators in maintenance that have lasted longer than 25 years, also longer than 40 years.

The operational energy use of the elevator is measured by Mitsubishi Electric Building Solutions Corporation according to ISO 25745-2 and low voltage electricity from the European market is assumed

Materials for maintenance	wt%
Ferrous metals	55,88%
Non-ferrous metals	1,79%
Plastics and rubbers	0,52%
Inorganic materials (e.g. concrete)	0,00%
Organic materials (e.g. paper or wood)	0,00%
Lubricants (e.g. oils and greases), paintings, coatings, adhesives and fillers	10,35%
Electric and electronic equipment	12,24%
Batteries and accumulators	19,23%
Refrigerants in car air conditioners	0,00%
Other materials	0,00%
Total mass of materials	581 kg

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 4)

For the end-of-life stage (C), a scenario is used which is based on Ecoinvent 3.9 datasets and default values. Default waste transport distance is 50 km for waste processing, an additional 50 km for landfill waste and 100 km for incineration. For most of the materials (~95 wt.%) default scenarios are used that are adopted from the Assessment method.

Waste type	Recycling	Landfill	Incineration
Stainless steel	95%	5%	0%
Galvanized steel	95%	5%	0%
Steel	95%	5%	0%
Aluminium	94%	3%	3%
Copper	85%	10%	5%
Lead	95%	5%	0%
Plastic	0%	20%	80%
Rubbers	0%	10%	100%
Paper/Cardboard/Wood	0%	0%	100%

DECLARATION OF SVHC

As part of their ongoing compliance commitments, Mitsubishi aims to identify which, if any, substances of very high concern (SVHCs), are contained within the product they supply to their customers and in what concentrations. Currently Mitsubishi is not aware of any SVHC present in the elevators or their subcomponents, which fall under the scope of this LCA, exceeding the weight threshold of 0.1% as laid down in Article 33 of the EU REACH regulation.

REFERENCES

- Nationale Milieudatabase, "Bepalingsmethode Milieuprestatie Bouwwerken", March 2022
- Nationale Milieudatabase, "NMD-Toetsingsprotocol opname data in de nationale milieudatabase", versie 1.1 mei 2022
- EN 15804 (incl. A1:2013 and A2:2019), "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products"
- ISO 14040, "Environmental management - Environmental management -- Life cycle assessment - Principles and framework", ISO14040:2006
- ISO 14044, "Environmental management - Life cycle assessment - Requirements and guidelines", ISO14044:2006
- International Organization for Standardization, ISO/DIS 21930, "Sustainability in building construction – Environmental declaration of building products", ISO/DIS 21930:2007
- International Organization for Standardization, ISO/TR 14025, "Environmental labels and declarations – Type III environmental declarations", ISO/TR 14025:2000
- Envirodec PCR: PCR 2019:14-c-PCR-008 Lifts (elevators) (2024-08-27)
- ISO, 2023 "Energy performance of lifts, escalators and moving walks — Part 1: Energy measurement and verification" (ISO 25745- 1:2023)
- ISO, 2015 "Energy performance of lifts, escalators and moving walks - Part 2: Energy calculation and classification for lifts (elevators) (ISO 25745-2:2015, Corrected version 2015-12-15)

REMARKS