

TOTO®

Commercial Wall-Mount Lavatory

LT307(A)

The Commercial Wall-Mount Lavatory features an unembelished design with an anti-splash rim for mess-free use. It's wall-mounted so it's easily accessible for users in wheelchairs.



Performance Dashboard

Features & functionality

- 21" x 18 1/4" lavatory with back splash
- 14 15/16" x 10 3/8" basin
- 1 1/4" O.D. drain hole
- Anti-splash rim
- Concealed front overflow
- Punching for concealed arm carrier
- Durable & easy to maintain
- Available for 4" or 8" spread faucets
- Soap dispenser hole option
- ADA compliant

Visit TOTO for more product specifications
for: [LT307](#), [LT307A](#), [LT307.4](#), [LT307.8](#)

Environmental performance

- Certifications & rating systems:**
- Life cycle assessment scope: Cradle to grave
 - Declare™ label
 - Contributes to earning credits in LEED®

[See LCA results & interpretation](#)

[See material health results & interpretation](#)

CSI MasterFormat™ #22 42 16.13



TOTO People-Centered Design Smart Fact

This unit exemplifies our dedication to ADA compliance. By taking into account people of all ages and abilities, TOTO ensures that their bathroom experience is elegant, accessible and beautiful every time.



SM Transparency Report™ + Material Health Overview™

VERIFICATION

LCA

3rd party verified



Transparency Report

Certified



Material evaluation

Self-declared



Validity: 01/14/16 – 01/14/22
TOT – 01/14/16 – 016

This declaration was independently verified by NSF to the UL Environment PCR and ISO 14025.

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The material health evaluation is self-declared and done in accordance with the Manufacturers Guide to Declare.

International Living Future Institute
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TOTO USA

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Contact us

LCA results & interpretation

Commercial Wall-Mount Lavatory LT307(A)

Life cycle assessment

Material health

Scope and summary

☒ Cradle to grave

☐ Cradle to gate with options

☐ Cradle to gate

Functional unit
One lavatory in an average U.S. commercial environment that functions for 20 years. 20 years is modeled as the period of application based on the average economical lifespan for commercial applications. The technical lifespan is longer. The economical lifespan of commercial applications can be longer or lower due to esthetic replacements or more intense use. The implication is that the LCA model assumes that the application ends at year 20 and that the materials will be treated in an end-of-life scenario.

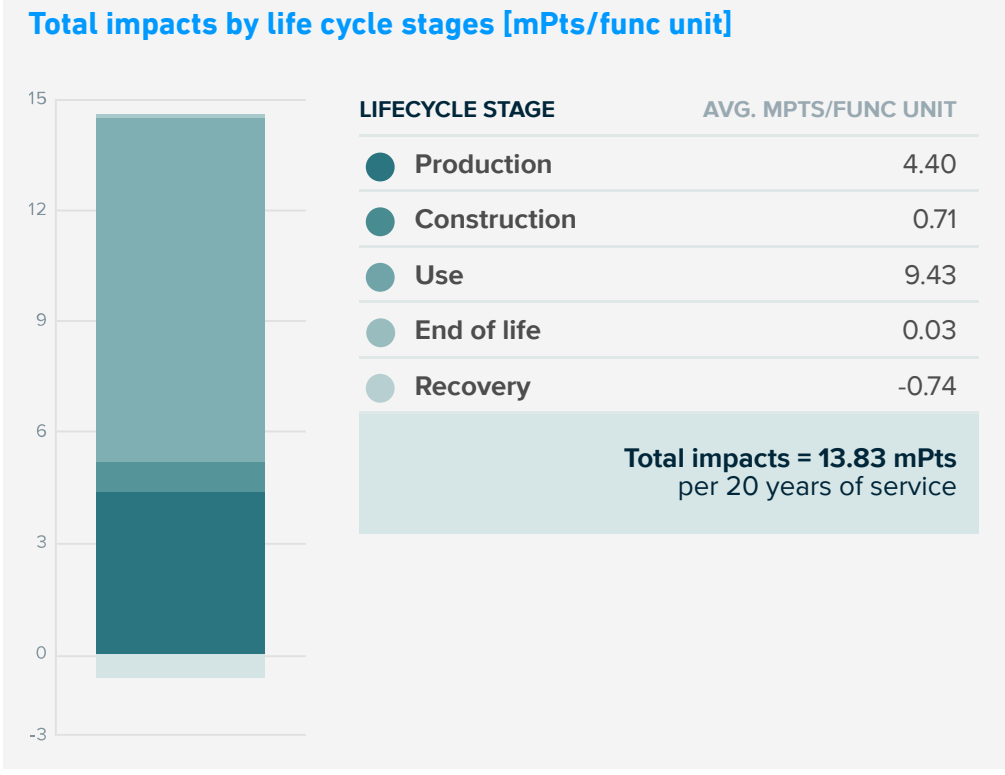
ULE Part B specifies the functional unit for all sanitary ceramic products as 1 t of product. The conversion factor from 1 t to 1 kg of product is 0.001. To make the impact results more understandable, a conversion factor of 0.0187 was applied to deliver impact results per one lavatory weighing 18.7 kg.

Reference service life: 20 years

Data reporting period: 2013

Default use phase scenario
20 years of service in an average U.S. commercial environment including regular cleaning with 10 mL of a 10% sodium lauryl sulfate (SLS) solution resulting in 73 kg of SLS.

Material composition greater than 1% by weight		
PART	MATERIAL	AVG. % WT.
Ceramic	Ceramic	88.8%
Packaging	Cardboard	9.4%
Parts	Stainless Steel	1.9%



LCA results

LIFECYCLE STAGE	PRODUCTION	CONSTRUCTION	USE	END OF LIFE	RECOVERY
Information modules: Included (X) Excluded * Installation and deconstruction/demolition are mostly manual. The lavatories should not need repair, replacement or refurbishment during the modeled lifetime. ** Operational energy and water use are assigned to the faucet used in combination with the lavatory; therefore, no operational energy and water use are applied to the life cycle of the modeled product.	A1 Raw Materials	A4 Transportation/ Delivery	B1 Use	C1 Deconstruction/ Demolition *	D Reuse, recovery and/or recycling
	A2 Transportation	A5 Construction/ Installation *	B2 Maintenance	C2 Transportation	
	A3 Manufacturing		B3 Repair	C3 Waste processing	
			B4 Replacement	C4 Disposal	
			B5 Refurbishment		
			B6 Operational energy use **		
			B7 Operational water use **		
					

SM 2013 Learn about SM Single Score results

Impacts per 20 years of service	4.40 mPts	0.71 mPts	9.43 mPts	0.03 mPts	-0.74 mPts
Materials or processes contributing >20% to total impacts in each lifecycle stage	Ceramic parts production together with brass parts and injection molding process.	Transportation of the product to installation site or consumer and disposal of packaging.	Volume of water use during the operation of the product and the embedded energy use (such as electricity) in the water used.	Transport to waste processing, waste processing and disposal of material flows transported to a landfill.	Plastic and metal components' recycling processes.

TRACI v2.1 results per one lavatory

LIFECYCLE STAGE	PRODUCTION	CONSTRUCTION	USE	END OF LIFE	RECOVERY
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Ecological damage

Impact Category	Unit						
Acidification	kg SO ₂ eq		1.22E-01	4.82E-02	1.42E+00	2.28E-03	-1.33E-02
Ecotoxicity	CTU _e		3.66E+01	1.97E+01	1.03E+02	5.12E-01	-4.17E+00
Eutrophication	kg N eq		1.45E-02	3.96E-03	1.14E-01	2.13E-04	-2.61E-03
Global warming	kg CO ₂ eq		3.89E+01	8.61E+00	1.03E+02	3.32E-01	-1.42E+00
Ozone depletion	kg CFC-11 eq		5.19E-06	4.52E-09	6.79E-06	5.56E-08	-1.15E-07

Human health damage

Impact Category	Unit						
Carcinogenics	CTU _{he}	?	1.35E-06	1.06E-07	1.78E-06	5.80E-09	-3.27E-07
Non-carcinogenics	CTU _h	?	3.75E-06	1.02E-06	1.20E-05	4.70E-08	-5.73E-07
Respiratory effects	kg PM _{2.5} eq	?	1.28E-02	8.72E-04	1.20E-01	1.86E-04	-2.40E-03
Smog	kg O ₃ eq	?	2.21E+00	1.32E+00	6.13E+00	6.13E-02	-1.60E-01

Resources depletion

Impact Category	Unit						
Fossil fuel depletion	MJ surplus	?	7.98E+01	1.40E+01	2.04E+02	7.87E-01	-1.57E+00

Download PDF for page 4: Additional EPD content required by ULE PCR Parts A and B; and suggested by ULE/USGBC Enhanced EPD: Requirements for PCRs

References

LCA Background Report
TOTO Sanitary Ceramic Products – Commercial Wall Hung Lavatory and Commercial Undercounter Lavatory LCA Background Report, TOTO 2015; SimaPro 8. WAP Sustainability verified the LCA to ISO 14040-44 and the ULE PCR for Building-Related Products Services for NSF International.

ULE PCR for Building-Related Products and Services
Adapted for UL Environment from the range of Environ-mental Product Declarations of Institute Construction and Environment e.V. (IBU); PCR review conducted by the Independent Expert Committee (SVR)
Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Project Report, v1.3, June 2014
Part B: Requirements on the EPD for Sanitary Ceramics, v5, July 2014

UL/USGBC Guidance: Enhanced EPD: Requirements for PCR
This SM Transparency Report conforms to the requirements of the USGBC Enhanced EPD Requirements for PCRs.

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

SM Transparency Reports enable purchasers and users to compare the environmental performance of products on a life cycle basis. They are designed to present information transparently to make the limitations of comparability more understandable. SM Transparency Reports of products that comply with the same Product Group Definition (PGD) or PCR and include the same life cycle stages, but are made by different manufacturers, may not sufficiently align to support direct comparisons. They therefore, cannot be used as comparative assertions unless the conditions defined in ISO 14025 Section 6.7.2, 'Requirements for Comparability' are satisfied.

Rating systems

The intent is to reward project teams for selecting products from manufacturers who have verified improved life-cycle environmental performance.

LEED BD+C: New Construction | v4 - LEED v4
MR Building product disclosure and optimization
Environmental product declarations

SM Transparency Report product credit values:	
<input type="radio"/> LCA self-declared, Report self-declared	0 product
<input type="radio"/> LCA verified, Report self-declared	1/4 product
<input checked="" type="radio"/> LCA verified, Report certified	1 product

Green Globes for New Construction and Sustainable Interiors
NC 3.5.1.2 Path B: Prescriptive Path from Building Core | NC 3.5.2.2 and SI 4.1.1 Path B: Prescriptive Path for Interior Fit-outs

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LCA & material health results & interpretation

Commercial Wall-Mount Lavatory LT307(A)

Life cycle assessment

Material health

Evaluation program: Declare

Declare labels are issued to products disclosing ingredient inventory, sourcing and end of life options. Declare labels are based on the Manufacturers Guide to Declare, administered by the International Living Future Institute.

How it works

Material ingredients are inventoried and screened against the [Living Building Challenge](#) (LBC) Red List which represents the 'worst in class' materials, chemicals, and elements known to pose serious risks to human health and the greater ecosystem.

The Declare product database and label are used to select products that meet the Living Building Challenge's stringent materials requirements, streamlining the materials specification and certification process.

How this rating was achieved

Declare level

'Red List Free' is awarded to products when no materials on the Living Building Challenge's Red List are in the product. The LBC Red List represents the “worst in class” materials, chemicals, and elements known to pose serious risks to human health and the greater ecosystem.

What's in the product and why

The ceramic body and glaze make up the majority of the total mass of the lavatory. Therefore, manufacturing and transportation of the ceramic create the greatest human health impacts when compared to the overall manufacture of the entire lavatory. *By specifying a lavatory manufactured in North America, the consumer helps mitigate these human health impacts.*

Red List materials

No Red List materials are present in the lavatory.

Where it goes at the end of its life

TOTO encourages consumers to recycle their used lavatory and lavatory parts. Contact your local municipality for recycling programs.

Assessment scope and results

Content inventory: All ingredients identified by name and CAS #
Inventory threshold: 100 ppm

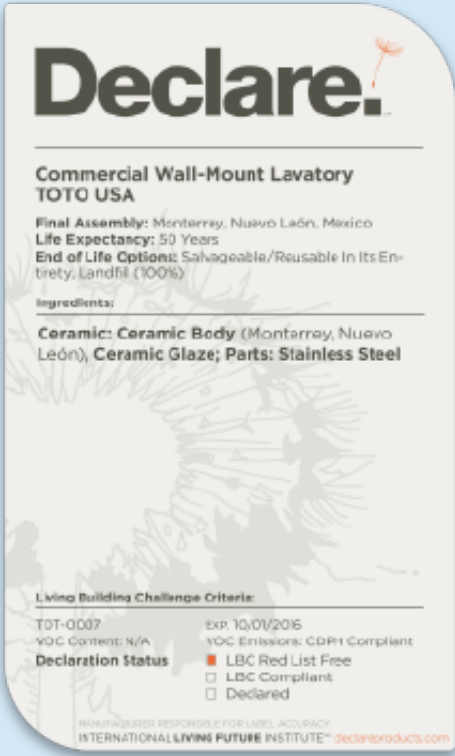
Declaration status:

The Declare product database and label are used to select products that meet the LBC's stringent materials requirements, streamlining the materials specification and certification process.

- LBC Red List Free ?
- LBC Compliant ?
- Declared ?



Commercial Wall-Mount Lavatory



Click on each label to see the full declaration

References

Declare

TOTO USA, Declare label for Commercial Wall-Mount Lavatory LT307

Manufacturer's Guide to Declare

A comprehensive guide providing information about the program, the assessment methodology, how to submit material data to obtain a Declare label and how they are used to meet the Health & Happiness and Materials Petals of the Living Building Challenge.

Rating systems

LEED v4, Building product disclosure and optimization
Material Ingredients

Credit values:

- ☒ Option 1. Material ingredient reporting 1 product
- ☐ Option 2. Material ingredient optimization 1 product

Living Building Challenge
Living Building Challenge 3.0



Materials petal:

- ☒ Imperative 10. Red List Free
- ☒ Imperative 12. Responsible Industry
- ☒ Imperative 13. Living Economy Sourcing

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How we make it greener

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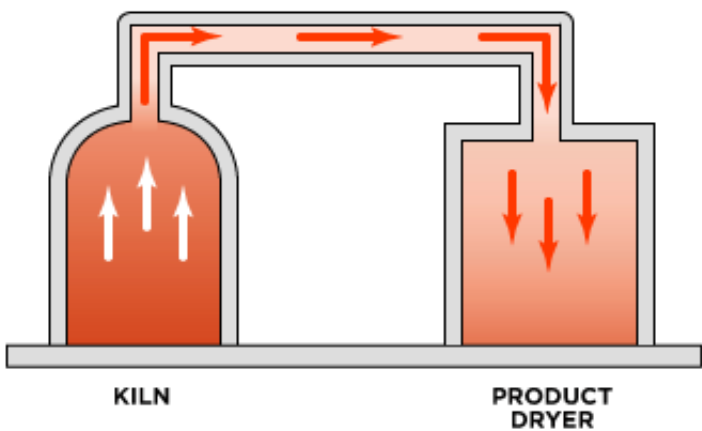
Collapse all

See LCA results by lifecycle stage

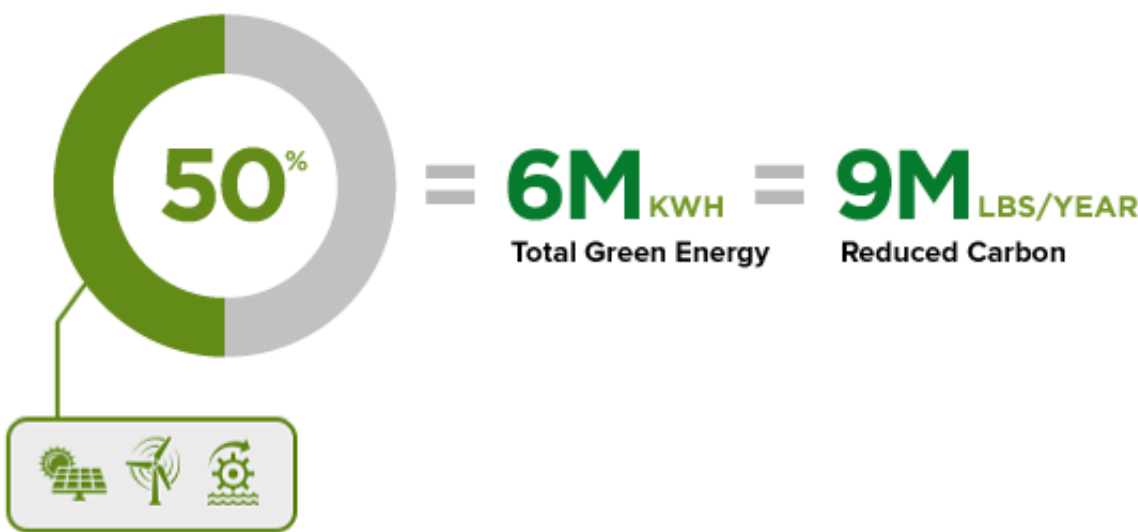
PRODUCTION



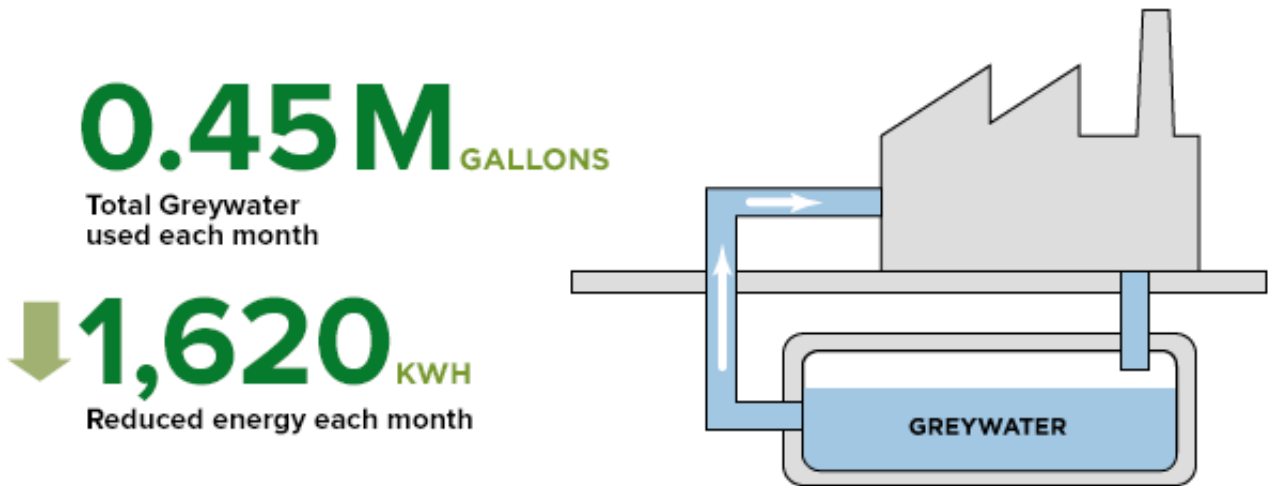
↓ **15%**
Less Natural Gas



Waste heat from the kilns is routed to the product dryer. This reduces 15% natural gas consumption.



50% of the electricity that TOTO uses is based on renewable energy generation. It's 6 million kilowatt hours of green energy, which means over 9 million pounds of carbon reduced each year.



0.45 million gallons per month of greywater is used in TOTO's operations. 1,620 of kwh in energy is reduced due to less potable water.



65% of all cardboard used is 100% recycled content.

CONSTRUCTION



UPS parcel shipments are carbon neutral. TOTO is a registered SmartWay® Transport Partner.

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Additional EPD content required and suggested by:

- ULE PCR Parts A and B for Sanitary Ceramics; and
- ULE/USGBC Enhanced EPD: Requirements for PCRs

Commercial Wall-Mount Lavatory LT307(A)

Life cycle information

Manufacturing The lavatory is manufactured in Monterrey, Mexico. The body of the lavatory is manufactured by pumping clay slurry called casting slip into a mold. After a portion of the water diffuses into the mold, the pieces are de-molded and sent to the dryer. The inspected products are glazed and sent to the kiln for firing. During firing, the glassy raw materials melt in a process called vitrification, which makes the body solid and impermeable. The fired products are finally inspected, packaged, and shipped.

Standards and codes The specified model meets or exceeds: ADA, ICC/ANSI A117.1, ASME A112.19.2/CSA B45.1, TAS

Health, safety and environmental aspects during production TOTO Group follows a Global Environmental Policy with the purpose to promote activities centered on protecting the earth. Activities include maintaining Environmental Management Systems within the TOTO Group and associated subsidiaries, many of which are ISO 14001 certified, while others are working towards certification. TOTO Group also employs the Health, Safety, and Security Management System for safety and worker health.

Packaging Finished products are packaged in corrugated board boxes, some of which contain a top and a bottom pad, along with some inserts and stickers. The boxes are stapled, palletized, and wrapped with stretch wrap, then shipped to the US market. The stretch wrap is less than 1% of the weight, and the stickers and paper are equal to or greater than 1% of the total weight, with cardboard making up the rest.

Installation into the building is assumed to be manual or negligible in terms of energy consumption. After installation, the cardboard packaging is disposed.

Conditions of use The service life if defined in such a way that no operational energy or water use is applied, since operational energy and water use are assigned to the faucet used in combination with the lavatory.

Recycle or reuse At the end of life, it is assumed that the lavatories are landfilled. The model assumes installation parts are disposed of as follows: 70.5% of brass and zinc is recycled, 62.5% of corrugated board and paper is recycled and 33.8% of steel is recycled. TOTO ceramic materials can be recycled as aggregate in several applications; however, this is not currently a common practice.

Disposal The disposal of all ceramic material and non-recycled installation parts in a landfill, including transportation to the landfill, was included in the model.

Data

Background Primary manufacturing data were collected and provided by TOTO Mexico for the calendar year 2013 and were verified to be less than five years old. Assumptions were made based on data from TOTO USA manufacturing facilities wherever data were missing. This study used literature data from the USLCI database and the US ecoinvent database when supplier data were not made available.

Quality TOTO Mexico’s response to the request for data was comprehensive; however, the collection process gave little insight to the LCA practitioner as to how data was gathered and calculated. The LCA practitioner used back calculations and mass balance calculations to assure data was plausible, consistent and complete. No data on the recycled content of the components of the modeled products was provided. The LCA practitioner made no assumption in that regard and assumed worst-case scenario in that all materials were primary. The impact of this assumption is expected to be insignificant because the material inputs are not major drivers of the LCA results for the modeled products.

Literature data is comprised of the best available data from consistent sources, but varies from material to material in geography, time-related and technology coverage due to limited availability of specific data.

Dataset use A combination of primary and secondary data was used in the LCA; 100% primary data was used for the manufacturing module, and 100% secondary data was used for all other modules. 68.1% of the secondary data comes from ecoinvent 3, and 31.9% of the secondary data comes from ecoinvent 2. All generic datasets used are less than ten years old.

LCI DATASET NAME	AGE	VERSION
TOTO Mfg. Data	2013	N/A
ecoinvent 3	2013	3.0
ecoinvent 2	2010	2.0 and 2.2

- Cut-off criteria for the inclusion of mass and energy flows are:**
- 1% for renewable and non-renewable energy
 - 1% of total input mass for unit processes, where the total neglected flows from each module shall be a maximum of 5% of the energy usage and mass

Allocation
Allocation of the manufacturing data is done by mass and includes the weight of the finished product and the yield of the specific product. All processes and transportation needed to recycle the materials are assigned to the recovery stage. This includes a credit for preventing the manufacturing of the primary material.

Environmental parameters derived from LCA (as per EN 15804) per one lavatory

Use of resources

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D	Total
Use of renewable primary energy excluding the renewable primary energy resources used as raw materials	MJ, lower calorific value	1.48E+01	1.19E-01	4.03E-03	0	2.13E+01	0	0	2.43E-03	7.01E-03	1.02E-02	-1.30E+00	3.49E+01
Use of renewable primary energy resources used as raw materials	MJ, lower calorific value	5.72E+01	1.22E-02	1.60E-03	0	2.95E-01	0	0	2.48E-04	3.03E-03	4.90E-03	-4.91E+01	8.46E+00
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ, lower calorific value	7.20E+01	1.31E-01	5.64E-03	0	2.15E+01	0	0	2.68E-03	1.00E-02	1.51E-02	-5.04E+01	4.33E+01
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	MJ, lower calorific value	6.80E+02	1.00E+02	3.06E-01	0	1.90E+03	0	0	2.05E+00	3.41E-01	3.45E+00	-2.02E+01	2.67E+03
Use of non-renewable primary energy resources used as raw materials	MJ, lower calorific value	0	0	0	0	0	0	0	0	0	0	0	0
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ, lower calorific value	6.80E+02	1.00E+02	3.06E-01	0	1.90E+03	0	0	2.05E+00	3.41E-01	3.45E+00	-2.02E+01	2.67E+03
Use of secondary material	kg	0	0	0	0	0	0	0	0	0	0	0	0
Use of renewable secondary fuels	MJ, lower calorific value	0	0	0	0	0	0	0	0	0	0	0	0
Use of nonrenewable secondary fuels	MJ, lower calorific value	0	0	0	0	0	0	0	0	0	0	0	0
Use of net fresh water	m³	1.04E+02	6.61E-01	2.98E-02	0	1.76E+02	0	0	1.35E-02	3.80E-03	7.60E-02	-1.42E+01	2.67E+02

Output material flows

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D	Total
Hazardous waste disposed	kg	2.43E+01	1.53E-04	7.52E-04	0	1.77E+01	0	0	4.60E-06	5.30E-03	2.54E-03	-2.42E-01	4.18E+01
Non-hazardous waste disposed	kg	5.75E+00	3.14E-02	1.63E-02	0	6.11E+01	0	0	6.41E-04	1.73E-02	3.87E-02	-1.57E+00	6.54E+01
Radioactive waste disposed	kg	6.29E-02	7.90E-05	6.31E-05	0	2.10E-01	0	0	1.61E-06	2.24E-04	1.27E-04	-4.83E-03	2.69E-01

Waste categories

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D	Total
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0	0
Materials for recycling	kg	1.30E-02	0	0	0	0	0	0	0	0	0	1.18E+00	1.20E+00
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0	0
Exported energy	MJ, lower heating value per energy carrier	0	0	0	0	0	0	0	0	0	0	0	0

TRACI v2.1 disaggregated results per one lavatory

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3-B7	C1	C2	C3	C4	D
Acidification	kg SO ₂ eq	1.22E-01	4.80E-02	2.05E-04	0	1.42E+00	0	0	9.45E-04	2.90E-04	1.05E-03	-1.33E-02
Ecotoxicity	CTUe	3.66E+01	1.97E+01	2.04E-02	0	1.03E+02	0	0	4.02E-01	5.19E-02	5.78E-02	-4.17E+00
Eutrophication	kg N eq	1.45E-02	2.82E-03	1.13E-03	0	1.14E-01	0	0	5.54E-05	5.53E-05	1.03E-04	-2.61E-03
Global warming	kg CO ₂ eq	3.89E+01	7.88E+00	7.34E-01	0	1.03E+02	0	0	1.61E-01	3.30E-02	1.38E-01	-1.42E+00
Ozone depletion	kg CFC-11 eq	5.19E-06	1.80E-09	2.72E-09	0	6.79E-06	0	0	3.66E-11	4.19E-09	5.14E-08	-1.15E-07
Carcinogenics	CTUh	1.35E-06	1.06E-07	3.57E-10	0	1.78E-06	0	0	2.17E-09	2.22E-09	1.42E-09	-3.27E-07
Non-carcinogenics	CTUh	3.75E-06	1.02E-06	3.69E-09	0	1.20E-05	0	0	2.08E-08	1.85E-08	7.76E-09	-5.73E-07
Respiratory effects	kg PM _{2.5} eq	1.28E-02	8.56E-04	1.59E-05	0	1.20E-01	0	0	1.68E-05	6.24E-05	1.07E-04	-2.40E-03
Smog	kg O ₃ eq	2.21E+00	1.32E+00	2.11E-03	0	6.13E+00	0	0	2.57E-02	7.50E-03	2.81E-02	-1.60E-01
Fossil fuel depletion	MJ surplus	7.98E+01	1.39E+01	2.81E-02	0	2.04E+02	0	0	2.85E-01	3.95E-02	4.63E-01	-1.57E+00