SM Manufacturers Showroom

TOTO

Standard EcoPower® Faucet

< Click navigation to go to live Transparency Report.

TOTO_®

Standard EcoPower[®] Faucet

TEL3LS10 - Single Supply **TEL5LS10** - Thermal Mixing

Ideal for high-traffic commercial spaces, the TOTO Standard EcoPower sensor faucets provide an elegant water conservation solution for LEED option. Powered by water, EcoPower's turbine creates an electrical current that is stored in rechargeable cells to power the Smart Sensor System of the faucet. The EcoPower faucet is available in a single supply or a thermal mixing option.





Performance Dashboard

Features & functionality

EcoPower® sensor faucet with aerated flow Maximum 0.09 gallons per cycle Hydropower self-generating system Smart Sensor sets its own range; no adjustment required

On demand, up to 10 seconds while activated

Easy access screen for quick and easy

cleaning Self-adjusting faucet with control box and

mounting hardware, less supply lines

1/2" water supply, male threaded

Single-hole mount

ADA compliant

Visit TOTO for more product specifications for: TEL3LS10. TEL5LS10

TOTO's EcoPower® Faucets

CSI MasterFormat[™] #22 42 39

Environmental performance

Powered by the sheer force of running water

Cleaner restrooms, significant water savings

Metal parts and electric components are recyclable at the end of service

Certifications & rating systems:

CALGreen[®] compliant

Improved by:

See LCA results & interpretation



TOTO EcoPower sensor faucets are ideal for high-traffic commercial spaces, providing an





984

option. With as few as 10 uses a day, an EcoPower product's battery can last up to 19 years.

SM Transparency Report™

VERIFICATION	Repor
Certified	
Self-declared	
	LCA
3rd party verified	
Self-declared	

Validity: 10/18/14 - 10/18/17 TOT - 10/18/14 - 003

LCA SCOPE

Cradle to grave

Cradle to gate with options

Cradle to gate

The LCA and Report are independently verified and certified to the SM Transparency Report Framework and ISO 14025.

NSF International P.O Box 130140 789 N.Dixboro Road Ann Arbor, MI 48105, USA www.nsf.org +17347698010

TOTO USA 1155 Southern Road Morrow, GA 30260

Contact us

Download PDF

LCA results & interpretation

TEL3LS10 & TEL5LS10

L

Scope and summary

Solution Cradle to grave \bigcirc Cradle to gate with options \bigcirc Cradle to gate

Functional unit

One faucet in an average U.S. commercial environment for 3 years. One faucet in an average U.S. commercial environment. The period of 3 years is modeled as the period of application based on the average technical lifespan for commercial applications. The economical lifespan of commerical applications can be longer or lower due to aesthetic replacements or more intense use. The implication is that the LCA model assumes that the application ends at year 3 and that the materials will be treated in an end-of-life scenario.

Default use phase scenario

3 years of service in an average U.S. commercial environment with 0.08 gallon/use and 133 uses/day resulting in 12,136 gallons of water.

Material composition greater than 1% by weight

PART	MATERIAL	AVG. % WT.
Packaging	Cardboard	20%
Spout body	Brass (C360000)	11%
Controller body	Brass, Pb free	9%
Controller waterway	Brass, Pb free	7%
Controller cover	ABS	7%
Spout mounting bracket	SUS303	5%
Spout mounting rod	Stainless Steel, SUS304	4%
Spout mounting nut	Brass	4%
Spout hose	PVC	4%
Controller mounting screws	Stainless Steel, SUS303	2%
Manual	Paper	2%
Spout nozzle base	Polyacetal	1%
Spout aerator	Polyacetal	1%
Spout aerator gasket	NBR	1%
Spout nozzle key	Brass	1%
Spout clip	Steel	1%
Generator coil	Copper	1%
	Other	19%

What's causing the greatest impacts

All lifecycle stages

The production stage is dominating the results for most impact categories.

The production stage has the most significant contributions to eutrophication (mostly from emissions from copper mining and the printed wiring board), non carcinogens (emissions from the production of copper and zinc) and ecotoxicity (mostly from emissions during mining of copper, gold and zinc). The use stage is important, typically in the range of 15%-25% of the overall impacts. The use stage impact is mostly due to the embedded energy arising from acquisition, treatment and distribution of the water used during the use of the product. The recovery stage includes recycling processes and benefits by preventing the need to produce primary materials. Recycling is a relevant factor for some of the impact categories, offsetting a portion of the impacts caused by production. Additionally, the delivery of the product to the construction/installation site, the construction/installation processes, the processes for dismantling the product and final waste treatment during the end of life stage do not have a significant impact.

Production stage

Brass parts, the printed wiring board, and turning and electroplating processes have significant contributions to the impact categories. The remaining parts and processes do not have a significant contribution to the overall impacts in the rest of the categories.

Sensitivity analysis

There are many deviations over the life cycle stages of the two products except for the use stage. The deviations in the LCA results are highly correlated to the cradle-to-gate (i.e. production stage) impacts. These variations are mainly due to the difference in weight of the two products.

Multi-product weighted average

Results represent the weighted average using production volumes for the products covered. Variations of specific products for differences of 10-20% against the average are indicated in purple ; differences greater than 20% are indicated in red. A difference greater than 10% is considered significant.

TOTO **PeoplePlanetWater**, programs improving environmental performance

- TOTO's EcoPower products are powered by the force of running water.
- The electronic and mechanical components are programmed and designed to allow water flow and accurate flush volume only when

Total impacts by life cycle stages [MPTS/FUNC UNIT]

25	LIFECYCLE STAGE	AVG. MPTS/FUNC UNIT
20	Production	18.20
	Construction	0.05
15	Use	3.15
10	End of life	0.03
	Recovery	-1.67
0	Тс	tal impacts = 19.76 mPts per 3 years of service
-5	A variation of 10 to 20% A	variation greater than 20%

- needed.
- Water consumption is reduced in the use phase due to superior flushing performance.

See how we make it greener

LIFECYCLE STAGE	PRODUCTION	CONSTRUCTION	USE	END OF LIFE	RECOVERY
Information modules: Included Excluded* *Installation and deconstruction/demolition are mostly manual. The sanitary fittings should not need repair, maintenance or	A1 Raw Materials	A4 Transportation/ Delivery	B1 Use	C1 Deconstruction/ Demolition	D1 Recycling
	A2 Transportation	A5 Construction/ Installation	B2 Maintenance	C2 Transportation	D2 Recovery
replacement during the modeled life time.	A3 Manufacturing		B3 Repair	C3 Waste processing	D3 Reuse
Operational energy use is irrelevant to the life cycle of the modeled product.			B4 Replacement	C4 Disposal	
Reuse and energy recovery are not modeled for sanitary fittings.			B5 Refurbishment		
			B6 Operational energy use		
			B7 Operational water use		

SM 2013 Learn about SM Single Score results

Impacts per 10 years of service	18.20 mPts	0.05 mPts	3.15	0.03	-1.67
Materials or processes contributing >20% to total impacts in each lifecycle stage	Brass parts and printed wiring boards together with manufacturing processes such as turning and electroplating.	Disposal of packaging and transportation of the product to installation site or consumer.	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

LCA results

A variation of 10 to 20% | A variation greater than 20%

A validation of to 20% (A validation greater than 20%						
LIFECYCLE STAGE	PRODUCTION	CONSTRUCTION	USE	END OF LIFE	RECOVERY	
Ecological damage						
Impact Category Unit						

Acidification	SO₂ eq	?	7.06E-01	2.91E-03	2.83E-01	1.53E-03	-3.75E-02
Ecotoxicity	CTU _e	?	2.81E+02	1.17E+00	2.33E+01	2.25E-01	-1.59E+01
Eutrophication	N eq	?	5.80E-01	6.61E-04	5.91E-03	7.84E-04	-9.41E-03
Global warming	CO ₂ eq	?	5.30E+01	8.82E-01	4.25E+01	1.07E+00	-1.94E+00
Ozone depletion	CFC-11 eq	?	5.61E-06	8.81E-09	2.03E-06	1.86E-08	-1.83E-07
Human health da	amage						
Impact Category	Unit						
Carcinogenics	CTUh	?	2.99E-06	6.47E-09	8.81E-07	2.94E-09	-4.92E-07
Non-carcinogenics	CTUh	?	1.12E-04	6.19E-08	3.97E-06	2.39E-08	-8.36E-06
Respiratory effects	kg PM _{2.5} eq	?	8.72E-02	5.73E-05	1.94E-02	1.60E-04	-6.57E-03
Smog	kg O₃ eq	?	5.51E+00	7.85E-02	2.12E+00	2.84E-02	-3.43E-01
Resources depletion							
Impact Category	Unit						
Fossil fuel depletion	MJ surplus	?	6.51E+01	8.39E-01	2.50E+01	2.96E-01	-3.12E+00

References

LCA Background Report

TOTO Sanitary Fittings Products LCA Background Report (public version), August 2014

SM Transparency Report Framework

Part A: Part A: LCA Calculation Rules and Background Report Requirements (Draft V2) (compliant with ISO14040-44, ISO14025 and EN15804) **Part B:** Product Group Definition – Commercial Faucets

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) 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:

\bigcirc LCA self-declared, Report self-declared	0 product
C LCA verified, Report self-declared	1/4 product
S 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

🛜 SM Transparency Report™

Report
LCA
S

LCA SCOPE

- 🛇 Cradle to grave
- Cradle to gate with options
- Cradle to gate

The LCA and Report are

NSF International P.O Box 130140 789 N.Dixboro Road Ann Arbor, MI 48105, USA www.nsf.org +1 734 769 8010



Contact us



Validity: 10/18/14 – 10/18/17 TOT – 10/18/14 – 003 independently verified and certified

to the SM Transparency Report Framework and ISO 14025. NSF.

©2013-2105 | The SM Transparency Report™ Program is operated by Sustainable Minds® | All rights reserved Privacy policy



SM Manufacturers Showroom
TOTO
Standard EcoPower® Faucet



How we make it greener

TEL3LS10 & TEL5LS10

See LCA results by lifecycle stage

Collapse all

CONSTRUCTION







TOTO participates in the UPS Carbon Neutral program. TOTO is a certified SmartWay partner.

USE



TOTO's Standard EcoPower® Faucets feature the highly regarded EcoPower technology. Engineered to reduce environmental impacts, TOTO's EcoPower products offer water and energy savings without sacrificing performance. Below are some of the features of TOTO's EcoPower technology.

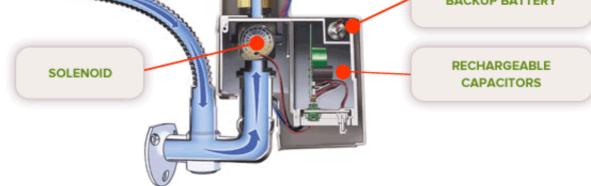
MICROTURBINE

As water flows, the microturbine recharges the capacitors. Energy from the capacitors powers the sensor and solenoid. At times of low usage, the back-up battery will charge the capacitors. With as little as 30 uses per day, the back-up battery can last up to 10 years.

SENSOR

The self-adjusting sensor is located in the nose of the spout, activating the flow of water without the need to search for the detection zone. The flow of water is immediately stopped after removing your hands

BACKUP BATTERY



SENSOR:

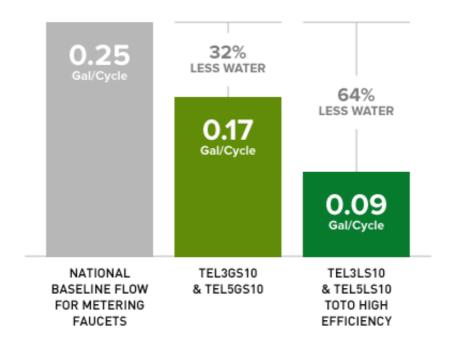
Located in the nose of the faucet, the EcoPower sensor ensures that water flows only when needed. The detection zone is right where you need it, eliminating the need to search with your hands to activate the flow of water. The sensor will stop the flow of water immediately upon removal of the hands from the sensing zone, preventing wasted water.

MICROTURBINE:

TOTO's EcoPower technology enables the product to operate 100% off grid. As water flows, the hydro powered microturbine recharges the capacitors for the sensor and solenoid. Less reliance on the back-up battery results in much less battery waste.

SOLENOID:

The solenoid mechanism, a water-saving technology, maintains consistent flow rate under a range of supply pressures.



Using the same proven engineering as our legendary EcoPower TEL3/5G series, the low flow TEL3LS10 and TEL5LS10 reinforce TOTO's performance reputation while offering additional water savings.

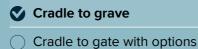


Metal and electronic parts can be recycled at the end of life.



VERIFICATION	Report
Certified	SE NSE
Self-declared	
	LCA
3rd party verified	SE NSE
Self-declared	

 $\begin{array}{l} \mbox{Validity: 10/18/14} - 10/18/17 \\ \mbox{TOT} - 10/18/14 - 003 \end{array}$



Cradle to gate

The LCA and Report are independently verified and certified to the SM Transparency Report Framework and ISO 14025. NSF International P.O Box 130140 789 N.Dixboro Road Ann Arbor, MI 48105, USA www.nsf.org +1 734 769 8010



TOTO USA 1155 Southern Road Morrow, GA 30260 www.totousa.com

Contact us