

# CIRCULARITY FACTS REPORT



## ASUS

**Products: ASUS Refurbished Computers –  
Desktops and Laptops**

**Site: INFO. Forerunner Computer Co., LTD.**

**No.2-5, Xuetang Rd., Niasong District, Kaohsiung City, Taiwan**

**Date: March 23, 2018**

*The UL Circularity Facts report shows detailed information not contained in the mark. Sections in the report cover what sites and products are included, how product, site and company Circularity Facts are calculated and specifics about the scope of the report.*



**VALIDATED**

- PRODUCT CIRCULARITY: 98% - 100% CIRCULAR CONTENT, 97% DESIGN FOR CIRCULARITY
- SITE CIRCULARITY: 97.59% - 97.59% TECHNICAL MATERIALS, 0% NATURAL MATERIALS
- COMPANY CIRCULARITY: 98% [UL.COM/CF](http://UL.COM/CF)

# Environment



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## General Information

Company	ASUSTek Computer Inc.
Certification Number	TBD
Effective Dates	March 23, 2018 – March 23, 2019
Product(s)	ASUS Refurbished Computer – Desktops & Laptops
Site(s)	INFO. Forerunner Computer Co., LTD. No.2-5, Xuetang Rd., Niasong District, Kaohsiung City, Taiwan
Circularity Scope <sup>1</sup>	Scope 1
Description of Scope	Project Scope: 1 Includes two products (refurbished desktop and laptop ASUS computers) and all waste directly associated with the production (refurbishment) factory for those products. Factory location: Forerunner Computer Facility located at No.2-5, Xuetang Rd., Niasong District, Kaohsiung City, Taiwan.

<sup>1</sup> Scope 1 includes performance of directly owned and operated company assets. Scope 2 includes Tier 1 suppliers, those suppliers who supply parts or services directly to the company including contract manufacture of the company’s products. Scope 3 includes impacts from the full lifecycle of the products, sites and companies participating in the supply chain, delivery and use of the product

## Standard(s) Used For Assessment

Circularity Facts for sites is based on UL 2799

Circularity Facts for products is based on the standards in the following table.

# Environment



	Content	Design
<b>Technical Materials Circularity</b>		
Product and Component Reuse	UL ECVP 2809	UL ECVP 2789
Recycling and Byproduct Synergy	UL ECVP 2809/ UL ECVP 2990	UL ECVP 2789
Closed Cycle Recycling	UL ECVP 2809	UL ECVP 2789
<b>Biologic Materials Circularity</b>		
<b>Biochemical Feedstock / biobased content</b>	ASTM D6866	
Composting	-	ASTM D6400
Anaerobic Digestion	-	Various ASTM and EN standards

Content must account for 100% of the composition of the product. All sources of materials, parts, components must be included so that the total adds up to 100%. The percent for Design and percent for Content are averaged to get a combined Circularity Rate.

Specific information related to this product can be found on [ul.com/spot](http://ul.com/spot).

## Table(s) of Results

Table(s) of results, both site(s) summary and/or product with descriptive or explanatory text when needed. One Table for each product and each site

**Table 1.** Circularity Facts for ASUS Refurbished Computer – Desktops & laptops

		Content	Design
Product Circularity: 98%	<b>Technical Materials Circularity</b>		
	Product and Component Reuse	100%	0%
	Recycling and Byproduct Synergy	0%	97%
	Closed Cycle Recycling	0%	0%

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	<b>Biologic Materials Circularity</b>		
	Biochemical Feedstock / biobased content	0%	0%
	Composting	-	0%
	Anaerobic Digestion	-	0%
	<b>Circularity Rate</b>	<b>100%</b>	<b>97%</b>
	<b>Linear Consumption</b>	<b>0%</b>	<b>3%</b>

**Table 2.** Circularity Facts for INFO. Forerunner Computer Co.,LTD. Facility, Taiwan

	<b>Technical Materials Circularity</b>	
Circularity Rate: 98%	Reduce	0%
	Reuse	0.12%
	Recycle	97.47%
	Byproduct Synergy	0%
	<b>Biologic Materials Circularity</b>	
	Biochemical Feedstock	0%
	Composting	0%
	Anaerobic Digestion	0%
Landfill Diversion Rate: 100%	<b>Energy Recovery</b>	
	Biofuels	0%
	Waste To Energy	2.41%
	<b>Linear Consumption</b>	
	Incineration	0%

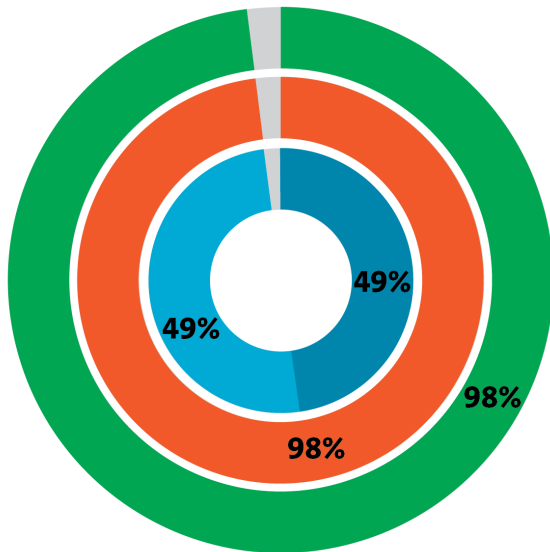
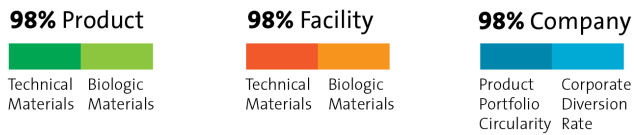
# Environment



	Landfill	0%
	<b>Special Materials</b>	
	Mandated Waste	0%

## Graphical Representation of Results

### UL Circularity Facts



This graphic represents a high level view of the circularity assessment for the company as described in the scope of this report. To download the most up to date report or find additional information on the company please visit [ul.com/spot](http://ul.com/spot). Information about the circular economy and the criteria and procedures included in this program can be found at [ul.com/cf](http://ul.com/cf).

Legend for graphical representation.

Overall percentage for each area, bars with percentage breakdown for each criteria – grey portion representing unattained percentage (used for smaller footprint)

# Environment



Circular option with break down percentages for each criteria within each area (larger foot print needed for visibility)

## Appendix A

Appendix A describes the methods used to calculate the circularity facts.

## Company

### Defining Scope

Scope is decided at initiation of project and is stated above. Products and sites outside the stated scope are not included in Circularity Facts presented above. The evaluation is limited to the standards stated in Section 2

### Corporate Diversion Rate

A measure of the company wide waste diversion performance using the UL Environment Zero Waste program (UL ECVP 2799) to confirm organization wide performance. No thermal technologies will be included in diversion rate for measuring Circularity Facts.

$$\text{Corporate Diversion Rate} = \frac{\text{Materials Diverted for Whole Company}}{\text{Materials Discarded for Whole Company}}$$

We understand that company level performance is a work in progress and will only reflect the portions of the company which have been measured. A statement of progress (i.e. 10 of 100 sites have been measured to date) should also be included in the description of the performance. Also a statement of sites included in the evaluation should also be included.

### Product Portfolio Circularity

The mass weighted average of the individual product circularity. The mass is the total mass product produced during the specified measurement period. Products are assessed as outlined in the section below on product circularity.

$$\text{Product Portfolio Circularity} = \frac{\sum_{\text{All Products}} (\text{Product Circularity} \times \text{Mass Product Shipped})}{\text{Mass All Products Shipped to Market}}$$



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Similar to waste diversion not all products will have circularity measured. A statement of progress (i.e. 10 of 100 products have been measured to date) should also be included in the description of the performance.

## Corporate Circularity

The final circularity score is the straight average of the product portfolio circularity and the site waste diversion, resulting in a score from 0 to 100% circular.

$$\text{Corporate Circularity} = \frac{(\text{Corporate Diversion Rate} + \text{Product Portfolio Circularity})}{2}$$

Specific information related to this product can be found on [ul.com/spot](https://ul.com/spot).





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