

Certifications

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At PlantSwitch, our mission is to replace all single-use plastics with sustainable, plant-based alternatives. Using our proprietary technology, we upcycle agricultural residues into a high-performance, plant-based resin that serves as an affordable, zero-waste alternative to traditional plastic.

Our material is designed to seamlessly integrate into existing manufacturing processes, making it a true drop-in replacement without sacrificing quality or functionality. From cutlery and straws to packaging and beyond, our resin can be used to create nearly any plastic product without the environmental cost. PlantSwitch is proof that innovation and responsibility can go hand in hand to create a cleaner, healthier future for our planet.

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TUV Austria is the leading independent certification body for compostable products. It provides TUV OK HOME certifications.

OK HOME is particularly important because composting can be done without any special equipment, unlike industrial composting (which is the problem with polylactic acid (PLA) bioplastic - only industrial). Industrial composting requires commercial facilities because the products that are only industrially compostable require higher temperatures for biodegradation.



CERTIFICATE FOR AWARDING AND USE OF THE 'OK COMPOST HOME' CONFORMITY MARK

TA8022408581

(Cancels and replaces the certificate dated 24 September 2024)
Issued by TÜV AUSTRIA GMBH

Product(s):

Domain	Home Compostable Products
Group	Finished Products
Family	Catering
Type	Cutlery
Trade mark	CompostZero
Description / Particularities	Type: Spoon PS-CS500 and Fork PS-CF500 Colour: brown Unprinted

Licensee: PlantSwitch
908 JR Industrial Drive
27332 Sanford
UNITED STATES OF AMERICA

Criteria: • Certification Scheme with reference OK 02 edition D "Home compostability of products"

Validity: From 6 November 2024 till 6 November 2029

Conclusions of the examination: The products comply with the above mentioned certification criteria, as confirmed by the report no 65005308-2024-AG-1147cert.

Applicable certification system: Type examination followed by supervision through verification tests on samples from the distributor's stocks or of the market.
The conformity of the product is guaranteed by the procedures for awarding and use of the 'OK compost HOME' conformity mark. This only applies for specimen bearing the 'OK compost HOME' mark.

Rotselaar, 6 November 2024

For the Certification Committee
Ph. DEWOLFS
President of the Committee

Annex: /

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TUV Austria is the leading independent certification body for compostable products. It provides TUV OK INDUSTRIAL certifications.

Many cities participate in industrial composting and waste sorting. The industrial composting certification is critical for compostable products.



CERTIFICATE FOR AWARDING AND USE OF THE 'OK COMPOST INDUSTRIAL' CONFORMITY MARK

TA8012408580

(Cancels and replaces the certificate dated 6 November 2024)

Issued by TÜV AUSTRIA GMBH

Product(s):

Domain	Industrially Compostable Products
Group	Finished Products
Family	Catering
Type	Cutlery
Trade mark	CompostZero
Description / Particularities	Type: Spoon PS-CS500, Fork PS-CF500, Fork PS-CZA1F500, Fork PS-CZA2F500 and Fork PS-CZA3F500 Colour: Brown Unprinted

Licensee: PlantSwitch
908 JR Industrial Drive
27332 Sanford
UNITED STATES OF AMERICA

Criteria: • Certification Scheme with reference OK 01 edition F
Including EN 13432 (09-2000): « Packaging - Requirements for packaging recoverable through composting and biodegradation – Test scheme and evaluation criteria for the final acceptance of packaging »

Validity: From 17 March 2025 till 17 March 2030

Conclusions of the examination: The products comply with the above mentioned certification criteria, as confirmed by the report no 65005308-2025-AG-0068cert.

Applicable certification system: Type examination followed by supervision through verification tests on samples from the distributor's stocks or of the market.
The conformity of the product is guaranteed by the procedures for awarding and use of the 'OK compost INDUSTRIAL' conformity mark. This only applies for specimen bearing the 'OK compost INDUSTRIAL' mark.

17 March 2025

For the Certification Committee
Ph. DEWOLFS
President of the Committee

Annex: /

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TUV Austria is the leading independent certification body for compostable products. It provides TUV OK INDUSTRIAL certifications.

Many cities participate in industrial composting and waste sorting. The industrial composting certification is critical for compostable products.



TÜVRheinland®
DIN CERTCO
Genau. Richtig.

CERTIFICATE

Certificate holder	**PlantSwitch Inc.** **908 JR Industrial Dr.** **Sanford NC 27332** **USA**
Product	Products made of compostable materials for home and garden composting
Type, Model	PlantSwitch Knife
Testing basis	NF T51-800:2015 Certification scheme Products made of compostable materials for home and garden composting (2023-01)
Mark of conformity	HOME COMPOSTABLE DIN Geprüft
Registration No.	9P0324
Valid until	2030-11-30
Right of use	This certificate entitles the holder to use the mark of conformity shown above in conjunction with the specified registration number. Further information see annex.

DAkkS Deutsche Akkreditierungsstelle D-ZE-11125-01-01

2025-11-05 K. Vehring
Dipl.-Biol. Katharina Vehring, M. Eng.
Certification Body

GESELLSCHAFT FÜR KONFORMITÄTSBEWERTUNG MBH DIN CERTCO

DIN

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Statement of Product Carbon Footprint

TÜVRheinland

Product: *Disposable tableware*



Statement holder: *PlantSwitch CO., LTD*

Manufacturer plant: *PlantSwitch CO., LTD*
Southwards to Longling Road 5, northwards to the planned 15 meters of roadeastwards to YC-AJ 16F block, Longling Industrial Park, Yuancheng District, Heyuan City, Guangdong, P.R. China

Standard: *ISO 14040:2006+A1:2020, ISO 14044:2006+A1:2017+A2:2020,*

Report boundary: *Cradle to Gate*

Declared unit: *1 kg of Disposable Tableware*

GHG emission data: *2.12 kg CO_2 equivalent per declared unit*

Period covered: *Aug. 1st, 2024 to Jan. 31st, 2025*

Cut-off criteria: *1% of the total amount of GHG emissions*

Report No.: *CN25BZ7J 001*

Date of Issue: 2025-03-27

Qian Guan, Hardlines
TÜV Rheinland (Shanghai) Co., Ltd.
TÜV Building I, No.177, Lane 777, West Guangzhong Road Jingan District, Shanghai, China

This statement is prepared by TÜV Rheinland based on client's life cycle inventory and carbon footprint report with purpose to be verified and validated. This statement does not permit the use of a TÜV Rheinland mark of conformity.

www.tuv.com

TÜV, TUEV and TUV are registered trademarks. Utilisation and application requires prior approval.

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BPI certification ensures that our packaging breaks down safely in commercial composting facilities without leaving behind harmful residues, supporting a more circular and sustainable future.



CERTIFICATE

for Products

THIS IS TO CERTIFY that the following Items have been found to comply with the specifications established in the American Society for Testing and Materials standard ASTM D6400 in accordance with the terms and conditions of the "International Biodegradable Products Institute, Inc. Licensing & Certification Program for Compostable Products":

- Biocomposite Cutlery (Spoon, Fork, and Knife) maximum thickness 950 µm handle, 1.93 mm max [20241227-02]

as further described in the application and related information submitted to the Biodegradable Products Institute by PlantSwitch Inc., (the "Licensee") a corporation of USA.

Specific items associated with these certifications can be found on the BPI Product Catalog: https://products.bpiworld.org/companies/plantswitch-inc

This Certificate authorizes the Licensee to use the Certification Program Logo depicted below in relation to such Products, subject to all conditions and terms of the Program Rules and the License Agreement between the Biodegradable Products Institute and the Licensee.

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BPI

ITEMS ON THIS CERTIFICATE

The following SKUs are covered under PlantSwitch Inc.'s BPI Certificate #10529695-6 for Natural Knife, max thickness 3.46 mm. These items were certified under procedure number(s) 20250924-01 and must be recertified with BPI on or before November 30, 2028.

BRAND	SKU	TITLE
PlantSwitch	PS-U-7K1000	PlantSwitch knife

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The USDA Biobased certification verifies that our products are made entirely from renewable, plant-based materials that reinforces the PlantSwitch mission to reduce reliance on fossil fuels and support a more sustainable, bio-based economy.

CMA certification ensures that our products have been tested and proven to break down effectively in real-world composting conditions across a variety of composting technologies.

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FSSC 22000

The Food Safety Management System of

PlantSwitch Co., Ltd.

Certified Organization Identification Code (COID): CHN-1-8625-754890

at

Certification Add.:(Heyuan Qingwei Furniture& Accessories Co.,LTD.Workshop 2)Southwards to Longling Road 5, Northwards to the Planned 15 Meters of Road, Eastwards to YC-AJ16F Block, Longling Industrial Park, Yuancheng District, Heyuan City, Guangdong Province, P.R. China

has been assessed and determined to comply with

the requirements of

FSSC 22000

Certification scheme for food safety management systems consisting of the following elements: ISO 22000:2018, ISO/TS 22002-4:2013 and Additional FSSC 22000 requirements (Version 6)

This certificate is applicable for the scope of:

Production of plastic disposable tableware（PHA/PBS）(Export only)

Food Chain Subcategory: I

(The authenticity of this certificate can be verified in the FSSC 22000 database of Certified Organization on www.fssc.com.)

Date of the last unannounced audit*: N/A

*At least one (1) surveillance audit is required to be undertaken unannounced after the initial certification audit and within each three (3) year period thereafter.

Certificate registration number: CQM25FSSC00146

Certification decision date: 28 May 2025

Initial certification date: 28 May 2025

Issue date: 28 May 2025

Valid until: 27 May 2028

Authorized by:
General Manager

ANAB ACCREDITED MANAGEMENT SYSTEMS CERTIFICATION BODY

IAF MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT

CQM 方圆标志认证集团
China Quality Mark Certification Group

We are proud to be FSSC 22000 certified, a globally recognized standard for food safety management systems. This certification demonstrates our commitment to producing packaging in facilities that meet strict hygiene, quality, and safety standards throughout the entire supply chain. It provides our customers with confidence that our operations are compliant with international food safety requirements.

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The aerobic disintegration of PlantSwitch Resin A in a thickness of 0.29 mm was evaluated in a seawater test according to the OK biodegradable MARINE certification scheme of TÜV AUSTRIA Belgium.

Over the course of 12 weeks, PlantSwitch resin, that is used to make our cutlery, straws, and compostable products, was evaluated in a seawater test to determine the degradation of the resin material measured through a 2mm sieve.
The PlantSwitch resin achieved a 98% disintegration rate in just 84 days, surpassing the 90% limit for the marine test.

PlantSwitch products will breakdown in any environment, no matter where the lifecycle ends.

START OF MARINE TEST ON PLANTSWITCH RESIN

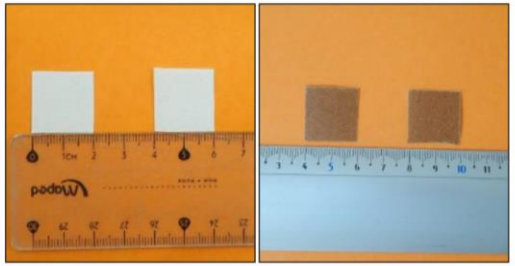

Figure 1. Visual presentation of cellulose filter paper (left) and Resin A (right)

4 WEEKS OF DEGRADATION
MARINE TEST ON PLANTSWITCH RESIN

Table 6. Overview of the visual observations of Resin A, cut into 2 cm × 2 cm pieces, during the incubation process



8 WEEKS OF DEGRADATION
MARINE TEST ON PLANTSWITCH RESIN



Small test item pieces present

12 WEEKS OF DEGRADATION
MARINE TEST ON PLANTSWITCH RESIN



Tiny test item pieces present
By far the major part of the test material had disappeared

RESULTED IN 98% DEGRADATION

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For additional questions or further information, please contact your sales representative or email info@plantswitch.com.

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