

SUSTAINABLE ENVIRONMENT  
STARTS FROM EVERYDAY

UKL |  PALF

Certified



Corporation

# KEY NUMBERS OF TAIWAN PINEAPPLE

**450-500**<sub>K</sub> Ton/Year  
metric tons of pineapples harvest in Taiwan

**800**<sub>K</sub> Ton/Year  
metric tons of pineapple leaves waste

**3-6** months  
months of pineapple leaves fiber soil decomposition

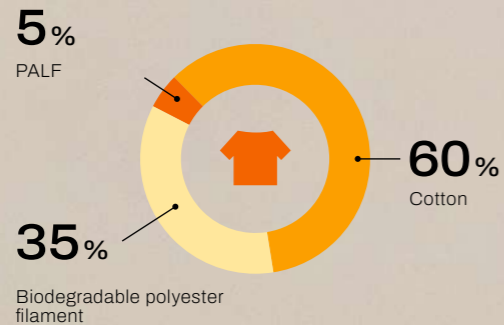
PALF is committed to developing eco-friendly textile products by using recyclable, zero-carbon emission agricultural waste "Pineapple Leaf" to establish the first localized sustainable yarn and fabric pilot production line in Taiwan. We promote the recycling of waste materials to create a more environmentally friendly, sustainable, sustainable textile and fashion industry.



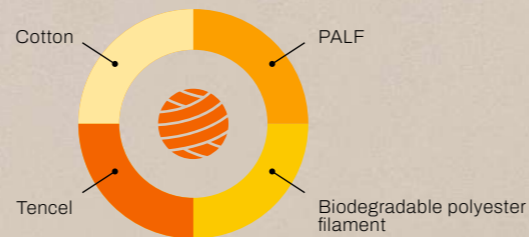
# SUSTAINABLE FASHION AND ENVIRONMENT

PALF has launched a new pineapple leaves fiber series this year. The fabrics are made from recycled, zero-carbon emission agricultural waste "pineapple leaves" to develop a series of sustainable and eco-friendly textile products, which means to support local farmers to recycle pineapple leaves waste, reduce environmental and air pollution, and realize the original intention of environmental sustainability.

## ■ PALF T-shirt



## ■ Knitting Yarn



## LOW CARBON EMISSION & WATER WASTE

### IMPACT.01



Compared to existing nature fiber such as cotton, linen and polyester, pineapple leaves has the advantages of easy availability, easy cultivation, short growth cycle and convenient transportation. The distance from farm to textile is only 300km, and all production is in Taiwan. It is very low carbon emissions.

Pineapple Leaves are by-products of pineapple cultivation, so there is low extra carbon emission

Carbon Dioxide Equivalent

**0.784** CO<sub>2</sub>e

CO<sub>2</sub>e per 1kg of fiber produced



From pineapple fruit to pineapple leaves fiber extraction process: water consumption only

**0.2** TON

Water consumption per KG of fiber (per cubic meter)



Sources from:

1 BSI Verification Statement No: PCFV801992

2 Ecological Footprint and Water Analysis of Cotton, Hemp and Polyester, Stockholm Environment Institute, 2005, ISBN 91975238 2 8.

IMPACT.02



**Create the value of pineapple fruit**

Through the pineapple leaves fiber extraction technology and yarn spinning expertise, we have successfully reproduced and reused agricultural waste. While reducing the accumulation of agricultural waste, it also increases the added value of agricultural products. Pineapple is not only food, but also a new sustainable material for the textile industry.

IMPACT.03



**Keep developing natural fibers belonging to Taiwan**

Through the use of local agricultural waste "Pineapple Leaves", Taiwan does not have its own natural fiber for textile applications. Pineapple Leaves Fiber is a fiber that belongs to Taiwan's local characteristics. UKL's PALF fiber products are widely used in daily life. We are fully committed to the development of Taiwan's local natural fiber production and environmentally friendly textile yarns.

# LESS CONSUMPTION MORE RECYCLING

Through the pineapple leaves fiber extraction technology and yarn spinning expertise, we have successfully reproduced and reused agricultural waste. While reducing the accumulation of agricultural waste, it also increases the added value of agricultural products. Pineapple is not only food, but also a new sustainable material for the textile industry.



# SUSTAINABLE FASHION AND ENVIRONMENT

## CHARACTERISTIC

- Dry handfeel like linen, absorbent and breathable.
- Suitable for blending natural or synthetic fibers
- Natural anti-bacterial properties



## QUALITY ASSURANCE

- Recycling of Waste Pineapple Leaves Grown by Organic Processes
- Advanced Pineapple Leaves Fiber Extraction Technology and Exclusive Yarn Production Technology

## ORIGIN TRACEABILITY

- Pineapple leaves fiber is used as a by-product of organic pineapple in Southern Taiwan, and pineapple leaves are used as yarn materials. The Pineapple Farm has MOA organic product certification, which allows us to trace the origin of our products.

## SOCIAL VALUES

- Improvement of Farmers' Economic Condition
- Enhancement of rural labor force

## SUSTAINABLE ENVIRONMENT

- Low-carbon yarn production process, effective recycling of pineapple leaves
- Enhance the economic value of pineapple fruits and avoid carbon emissions from pineapple leaf incineration.
- Conversion of biomass sludge into fertilizer
- Use of pineapple leaves saves 2.4 metric tons of carbon emissions per metric ton and reduces water use by 97% compared to cotton.
- Correspond with SDGs 12, 13, 15 & 17
- The pineapple farm is bio-diversity & offers grass owl friendly agricultural products.





# Opinion Statement

## Product Carbon Footprint Verification Opinion Statement

This is to verify that: UKL Enterprise Co., Ltd.  
25 F.-7 & 8  
No. 97, Sec. 1, Xintai 5th Rd.  
Xizhi Dist.  
New Taipei City  
221416  
Taiwan

優城隆企業股份有限公司  
臺灣  
新北市  
汐止區  
新台五路1段97號  
25樓之7、之8  
221416

Holds Statement No: PCFV 801992

As a result of carrying out the verification and validation procedures in accordance with ISO 14064-3:2019 of product life cycle greenhouse gas emissions, the statement for mixed engagement including reasonable assurance for verification activity and agreed-upon procedures (AUP) contains the following:

- The product carbon footprint with the declared unit of one kilogram of Pineapple Leaves Fiber(PALF)(20-40µm) is 0.784 kilograms of CO<sub>2</sub> equivalent.
- The product life cycle GHG data quality was verified to be acceptable against the requirements of ISO 14067:2018.

This opinion statement shall be valid for a maximum period of two years after the latest issue date on this certificate. Should there be a change in the life cycle of the product whose GHG emissions are being assessed, the validity of this opinion statement will cease.

For and on behalf of BSI:

Managing Director BSI Taiwan, Peter Pu

Originally Registration Date: 2024-02-21

Effective Date: 2024-02-21

Latest Revision Date: 2024-02-21

Expiry Date: 2026-02-20

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...making excellence a habit.™

The British Standards Institution is independent of the above named client and has no financial interest in the above named client. This Opinion Statement has been prepared for the above named client only for the purposes of verifying its statements relating to its carbon emissions more particularly described in the scope. It was not prepared for any other purpose. The British Standards Institution will not, in providing this Opinion Statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used or to any person by whom the Opinion Statement may be read. This Opinion Statement is prepared on the basis of review by The British Standards Institution of information presented to it by the above named client. The review does not extend beyond such information and is solely based on it. In performing such review, The British Standards Institution has assumed that all such information is complete and accurate. Any queries that may arise by virtue of this Opinion Statement or matters relating to it should be addressed to the above named client only.  
Taiwan Headquarters: 2nd Floor, No. 37, Ji-Hu Rd., Nei-Hu Dist., Taipei 114, Taiwan, R.O.C.  
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Statement No: PCFV 801992

The conclusions for different engagement types are explained as follows:

### Verification

- Verification are based on reasonable level of assurance and include the following greenhouse gas emissions.
  - the fugitive emissions in production stage of life cycle.
  - purchased or acquired electricity in production stage of life cycle.
- The data and information of greenhouse gas emissions are based on historical in nature, and no material misstatements in this product life cycle greenhouse gas emission statement were revealed.

### Agreed upon procedures (AUP)

- AUP are specific types of verification activities, BSI have performed the evidence-gathering procedures and enumerated below with respect to the upstream and downstream GHGs emissions information.
  - all production-related raw materials acquisition including purchased electricity and water resource and transportation.
  - disposal and treatment of waste generated in operations.
- BSI do not express any assurance on the GHG emissions, removals and storage.

(Unit: Kg CO<sub>2</sub>e)

Product Carbon Footprint	Emissions for Each Engagement Types		Total
	Agreed-upon Procedures (AUP)	Verification	
one kilogram of Pineapple Leaves Fiber (PALF), 20-40µm	0.703	0.081	0.784

Originally Registration Date: 2024-02-21

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Location	Verification Information
UKL Enterprise Co., Ltd. 25 F.-7 & 8 No. 97, Sec. 1, Xintai 5th Rd. Xizhi Dist. New Taipei City 221416 Taiwan 優城隆企業股份有限公司 臺灣 新北市 汐止區 新台五路1段97號 25樓之7、之8 221416	The product carbon footprint with the declared unit of one kilogram of Pineapple Leaves Fiber(PALF), 20-40µm has been verified and validated.

### Additional information

Product related information is as follows:

- System boundary for this product: Cradle to Gate  
The product system boundary is consistent with its system boundary definition in the PCF report for product carbon footprint, which involves the acquisition of materials, process activity and the transportation of materials in the product life cycle.
- The data in this product life cycle greenhouse gas inventory report is from 2023-11-02 to 2023-11-04.
- The site-specific data include related facilities listed below from its own processes under the operational control of the organization and individual processes under the financial or operational control of the organization undertaking the CFP study.
  - Pinacell Co., Ltd.(綠冠農業有限公司): 3F., No. 141, Qingfeng St., Gushan Dist., Kaohsiung City 80454, Taiwan (R.O.C.) (高雄市大樹區久堂里中興街市場二巷3號)
  - TUCHEN TEXTILE Co., Ltd.(同正興業有限公司): No. 55, Ln. 76, Xinguang E. Rd., Daxi Dist., Taoyuan City 335001, Taiwan (R.O.C.) (335001 臺灣桃園市大溪區新光東路76巷55號)
- The secondary data include relative factors from EPA Carbon Footprint Calculation Platform and LCA software SimaPro v9.5.0.2 Ecoinvent v3.9.1 (IPCC 2021 GWP 100a).

Originally Registration Date: 2024-02-21

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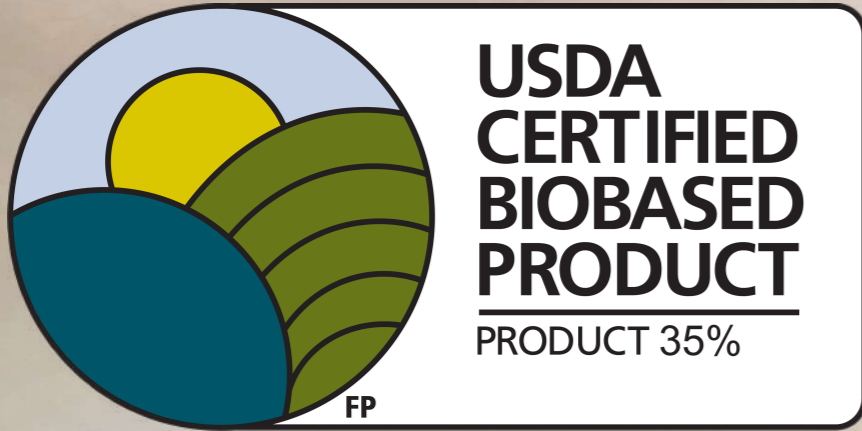
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# CERTIFICATE OF USDA BIOPREFERRED® PROGRAM PARTICIPATION

Congratulations to  
UKL Enterprise Co., Ltd.'s Pineapple  
Leaves Fiber (PALF)  
for receiving the USDA Certified Biobased  
Product Label on 02/29/2024 .



# WE MAKE ECO-PURE.

**Realizing the significance of environmental protection  
and demonstrating the charm of sustainability**

PALF from the perspective of sustainability, we incorporate the concept of environmentally friendly regeneration into our products by paying attention to daily life, and we don't neglect any details. The simple and clean design of our products can be matched according to personal preferences to create a style that is unique to you. Each product is a sign of our concern for environmental issues, and we are committed to reducing the carbon footprint of the apparel industry, and we will continue to invest in the development and production of environmentally friendly materials, so that the beauty of the world can be sustained.



# PALF





EVOPURE+  
OWNLIFE COLLECTION





EVOPURE+ OWNLIFE COLLECTION





We use zero-carbon emission agricultural waste - pineapple leaves , to establish the first production line of sustainable yarn and fabric that is entirely localized in Taiwan,developing eco-friendly textile products.

