

Product Carbon Footprint Verification Statement

**The Inventory of Product Carbon Footprint of
Recycled Carbon Fiber and Recycled Oligomer**

which is calculated by

S-Wanlai Co., LTD.

No. 11, Gongye S. 6th Rd., Nantou City, Nantou County 540, Taiwan (R.O.C.)

Based on life cycle assessment verified in accordance
with ISO 14064-3:2006 as meeting the requirements of

ISO 14067:2018

Basis of Assessment

Cradle-to-Gate

Authorized by



Stephen Pao

Knowledge Deputy General Manager

Version 1

Issue Date: 22 January 2024

Valid Date: 21 January 2026

TGP57-15-16 2207

SGS Taiwan Ltd.

No. 136-1, Wu Kung Road, New Taipei Industrial Park, Wu Ku District,
New Taipei City 24803, Taiwan

t (02) 22993279 f (02)22999453 www.sgs.com



Statement TW24/00018CFP, continued

Product Name	Recycled Carbon Fiber and Recycled Oligomer		
Declared Unit	Per kilogram		
Life cycle GHG emissions			
Declared Unit emissions (Unit: kilograms of CO ₂ e)			
Life Cycle Stage	Material	Manufacture	Total
Recycled Carbon Fiber	0.2721	1.4170	1.689
Recycled Oligomer	0.2129	1.4170	1.630

Statement TW24/00018CFP, continued

SGS has been commissioned by SGS-CSTC Standards Technical Co., Ltd. Tianjin Branch (hereinafter referred to as "SGS China"), SGS Mansion, No. 41, 5th Avenue TEDA, Tianjin, China 300457 to conduct the life cycle Greenhouse Gas (hereinafter referred to as "GHG") emissions verification of Recycled Carbon Fiber and Recycled Oligomer provided by S-Wanlai Co., LTD. (hereinafter referred to as "S-Wanlai"), No. 11, Gongye S. 6th Rd., Nantou City, Nantou County 540, Taiwan (R.O.C.) in accordance with ISO 14064-3:2006 against the requirements of

ISO 14067:2018

Roles and responsibilities

The management of S-Wanlai is responsible for the organization's GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of the life cycle GHG emissions for product information and the reported life cycle GHG emissions of the product.

It is SGS's responsibility to express an independent GHG verification opinion on the life cycle GHG emissions of the product.

SGS conducted a third party verification of the provided GHG assertion against the principles of ISO 14067:2018 and ISO 14064-3: 2006 in the period 14 December 2023 to 10 January 2024. The verification was based on the verification scope, objectives and criteria as agreed between SGS China and SGS.

Level of Assurance

The level of assurance agreed is that of reasonable assurance.

Scope

SGS China has commissioned an independent verification by SGS Taiwan of the reported Cradle-to-Gate life cycle GHG emissions associated with the sourcing of raw materials and through manufacture of the product, to establish conformance with ISO 14067:2018 and ISO 14064-3:2006 principles within the scope of the verification as outlined below.

- Title or description of activities : Product carbon footprint verification of the Cradle-to-Gate life cycle GHG emissions of Recycled Carbon Fiber and Recycled Oligomer.
- Product Category Rule : Nil.
- Declared unit : Per kilogram
- System boundary : Covers a Cradle-to-Gate assessment of the full life cycle emissions; the system boundary was clearly defined in accordance with ISO 14067:2018. All GHG's enlisted on ISO 14067:2018.
- Data resources : The primary data collection is from manufacturing and operational control phases. The secondary data collection is from Carbon Footprint Information Platform, Ecoinvent 3, EF Database 3.1, AGRIBALYSE.
- Life cycle assessment tool and index :
- Life cycle emissions are calculated by Excel and SimaPro 9.5.0.2.
 - IPCC 2021 AR6 GWP values are applied in this inventory.
- Manufacturing location :
 - No. 11, Gongye S. 6th Rd., Nantou City, Nantou County 540, Taiwan (R.O.C.)
- GHG information for the following production period was verified : 01 January 2022 to 31 December 2022.
- Intended use of the verification statement : Private.

Objective

The purpose of this verification exercise is, by review of objective evidence, to independently review:

- Whether the life cycle GHG emissions of the product are as declared by the organization's GHG assertion.
- The data reported is accurate, complete, consistent, transparent and free of material error or omission.

Criteria

Criteria against which the verification assessment is undertaken is the principles of ISO 14067:2018 and ISO 14064-3:2006.

Materiality

The materiality required of the verification was considered by SGS to 5%, based on the needs of the intended user of the GHG Assertion.

Conclusion

S-Wanlai provided the GHG assertion based on the requirements of ISO 14067:2018. The data had been verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria.

The GHG emission of each product is described as below:

Product Name	Recycled Carbon Fiber and Recycled Oligomer		
Declared Unit	Per kilogram		
Life cycle GHG emissions			
Declared Unit emissions (Unit: kilograms of CO ₂ e)			
Life Cycle Stage	Material	Manufacture	Total
Recycled Carbon Fiber	0.2721	1.4170	1.689
Recycled Oligomer	0.2129	1.4170	1.630

SGS's approach is risk-based, drawing on an understanding of the risks associated with reporting the life cycle GHG emissions of product information and the controls in place to mitigate these risks. Our examination included assessment and a test of evidence relevant to the amounts and disclosures in relation to the reported life cycle GHG emissions of the product.

We planned and performed our work to obtain the information, explanations and evidence that we considered necessary to provide a reasonable level of assurance that the life cycle GHG emissions per kilogram of Recycled Carbon Fiber and Recycled Oligomer are fairly stated.

We conducted our verification with regard to the GHG assertion of S-Wanlai, which included assessment of the company GHG information system, monitoring and reporting protocol. This assessment included the collection of evidence that support the reported data and verification of whether the provisions of the protocol reference were consistently and appropriately applied.

Statement TW24/00018CFP, continued

In SGS's opinion, the presented GHG assertion :

- is materially correct and is a fair representation of the GHG data and information, and
- is prepared in accordance with ISO 14067:2018 in relation to GHG quantification, monitoring and reporting.

Confidentiality

The reports and attachments may contain relevantly confidential information of the clients. In addition to being submitted as governmental application or certification documents, the reports and attachments are not allowed to be edited, duplicated, or published without the clients' agreement in written form.

Avoidance of Conflict of Interest

The reports and attachments are completely complied with the standards and procedures that related-authorities established. The reports and attachments of auditing process are conduct with fairness and honesty. If not, the auditing institution not only has to bear the relevant compensation duties, but also to receive legal charge and punishment.

Verifier Group

Above statements coincide with auditing process with fairness and impartiality, and aim at the emission of clients.

Lead Verifier:

Kevin Hsieh

Verifier:

Ocean Wu

This statement shall be interpreted with the GHG assertion of S-Wanlai as a whole. This result shall be valid for a maximum period of two years, after which the GHG emission shall be re-assessed.

Note: This Statement is issued, on behalf of Client, by SGS Taiwan Ltd. ("SGS") under its General Conditions for Green Gas Verification Services available at http://www.sgs.com/terms_and_conditions.htm. The findings recorded hereon are based upon an audit performed by SGS. A full copy of this statement, the findings and the supporting Carbon Footprint Assertion may be consulted at S-Wanlai Co., LTD., No. 11, Gongye S. 6th Rd., Nantou City, Nantou County 540, Taiwan (R.O.C.). This Statement does not relieve Client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.