## **Product Carbon Footprint Verification Statement**

The Inventory of Product Carbon Footprint of Yarn

which is calculated by

# Acelon Chemicals & Fiber Corporation

No.94, Fanjin Rd, Puyan Township, Changhua County 516, 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: 14 December 2022 Valid Date: 13 December 2024

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

	Draduat Nama	Yarn						
Product Name		ram						
Declared Unit		Per Kilogram						
Functional Unit		NA						
Life cycle GHG emissions								
	Functional Unit emissions (Unit: kilograms of CO <sub>2</sub> e)							
Life Cycle Stage		Material	Manufacture	Total				
Puyan Site	PP FILAMENT YARN DOPE DYED	2.3739	1.7563	4.130	4.130			
Douliu Site	NYLON 6 AIR TEXTURED YARN	5.7281	1.2247	6.953	6.953			
	POLYESTER AIR TEXTURED YARN DOPE DYED	4.9922	1.9546	6.947	6.947			
	PP AIR TEXTURED YARN DOPE DYED	2.6674	2.0865	4.754	4.754			
Fangyuan Site	NYLON 6 FILAMENT YARN	3.8739	1.7205	5.594	5.594			
	NYLON 6 DRAW TEXTURED YARN	5.3332	1.6455	6.979	6.979			
	NYLON 6 DRAW TEXTURED YARN DOPE DYED	5.7134	1.2830	6.996	6.996			
	POLYESTER DRAW TEXTURED YARN DOPE DYED	5.5873	1.3613	6.949	6.949			
	PP DRAW TEXTURED YARN DOPE DYED	4.2390	1.8055	6.045	6.045			

SGS has been commissioned by Acelon Chemicals & Fiber Corporation. (hereinafter referred to as

"Acelon"), No.94, Fanjin Rd, Puyan Township, Changhua County 516, Taiwan (R.O.C.) to conduct

the life cycle Greenhouse Gas (hereinafter referred to as "GHG") emissions verification of Yarn in

accordance with ISO 14064-3:2006 against the requirements of

ISO 14067:2018

Roles and responsibilities

The management of Acelon 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 26 September 2022 to 28 October 2022. The

verification was based on the verification scope, objectives and criteria as agreed between Acelon

and SGS.

**Level of Assurance** 

The level of assurance agreed is that of reasonable assurance.

Scope

Acelon 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 Yarn.

Product Category Rule : NA

Functional unit : NA

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 Calculation Platform, Ecoinvent 3, ELCD, Swiss Input Output Database.
- Life cycle assessment tool and index :
  - Life cycle emissions are calculated by Excel and Simapro 9.4.0.2
  - IPCC 2021 AR6 GWP values are applied in this inventory.
- Manufacturing location :
  - Puyan Site: No.94, Fanjin Rd, Puyan Township, Changhua County 516, Taiwan (R.O.C)
  - Fangyuan Site: No.45, Gongqu Rd., Fangyuan Township, Changhua County 528, Taiwan (R.O.C.)
  - Douliu Site: No.150, Dougong 10th Rd., Douliu City, Yunlin County 640, Taiwan (R.O.C.)
- GHG information for the following production period was verified: 01 January 2021 to 31 December 2021.
- 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

Acelon 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		Yarn						
Declared Unit		Per Kilogram						
Functional Unit		NA						
Life cycle GHG emissions								
	Functional Unit emissions (Unit: kilograms of CO <sub>2</sub> e)							
Life Cycle Stage		Material	Manufacture	Total				
Puyan Site	PP FILAMENT YARN DOPE DYED	2.3739	1.7563	4.130	4.130			
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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 of yarn are fairly stated.

We conducted our verification with regard to the GHG assertion of Acelon, 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.

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:

Verifier:

Channing Chen
Tim Chuang.

Finn Ham

This statement shall be interpreted with the GHG assertion of Acelon 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 Acelon Chemicals &

Fiber Corporation., No.94, Fanjin Rd, Puyan Township, Changhua County 516, 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.